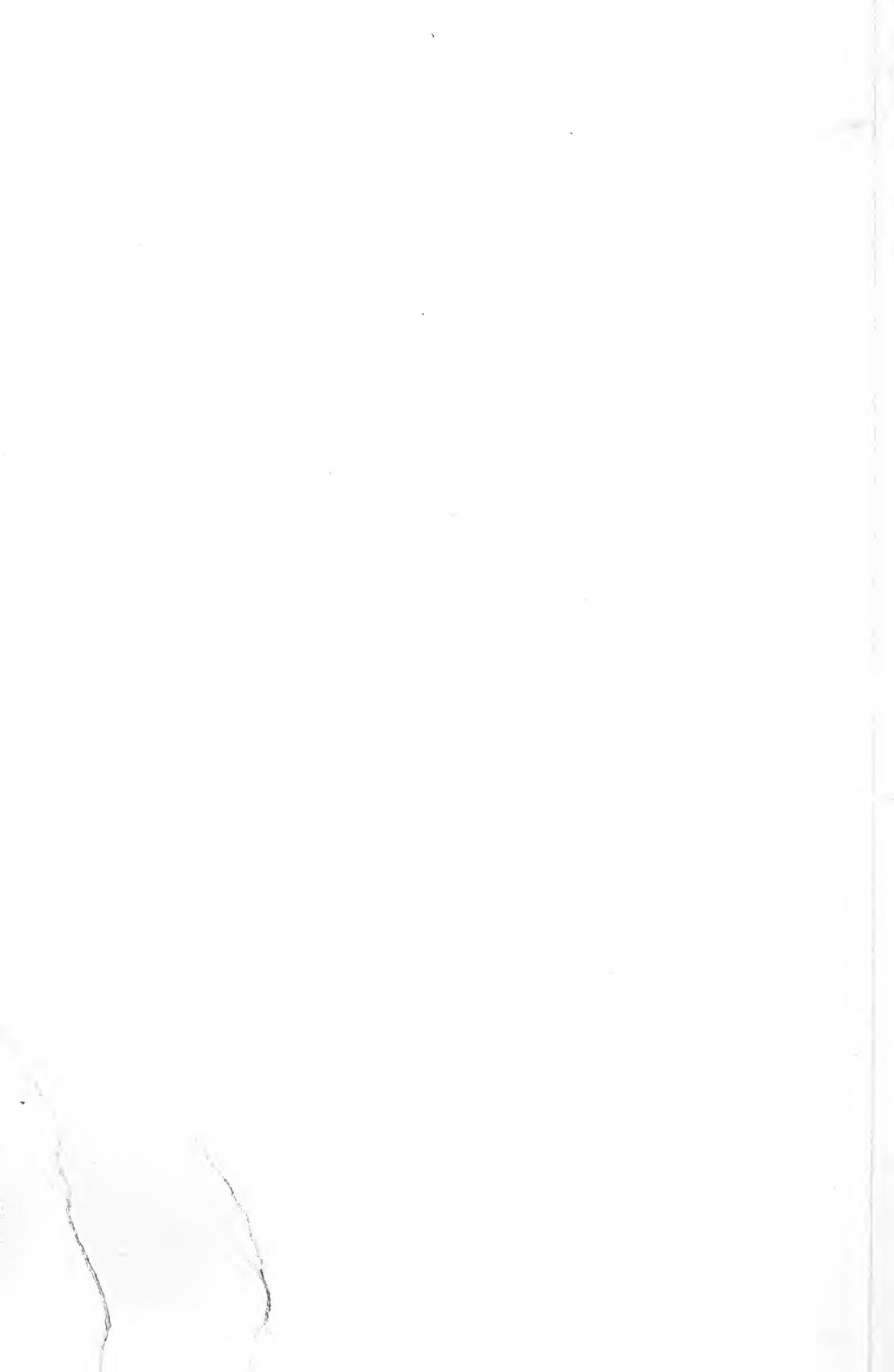


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**OUR MOTTO: We not only test our seeds but we sell
only those that have stood the test.**

SEEDS

BULBS

TREES

PLANTS

1 9 1 9



JACOB KAUFMANN CO.
1410 First Avenue
SEATTLE, WASHINGTON

Military necessity demands that the United States greatly increase its exports of foodstuffs overseas during the year 1919.

Our performance must exceed five million tons, most of which will be staple foods, such as breadstuffs, meat, dairy products, fats and sugar. This huge total represents an increase of more than 50 per cent.

Plan your garden to make the home as independent as possible of shipped-in food. By choosing seeds and arranging planting dates to provide a continuance of fresh products, you will assist in relieving the pressure on the staple foods.

Plant time-tried, sensible varieties to secure the best returns from garden labor. Give preference to standard varieties of seeds, and avoid unnecessary experimentation.

Grow meat-saving vegetables. Certain garden products, such as beans, peas, lentils and other foods rich in protein are partial meat savers, and supply much nourishment in small bulk. Grow this class of food liberally to help conserve meat needed for export.

Herbs and relishes make plain food appetizing. A plentiful supply of parsley, lettuce, radishes, cucumbers, mushrooms, celery, thyme, and similar products of the garden will give zest and relish to dishes which have little individual flavor of their own, well seasoned soups, stews and hashes make acceptable and nourishing dishes, at the same time utilizing left-overs of food and reducing waste.



Crosby's Egyptian,
The Most Popular
Early Beet



beet that will be appreciated for the early gardens. Pkt., 5c and 10c; oz., 20c; $\frac{1}{4}$ lb., 50c; lb., \$1.75.

NEW YORK
CARROT

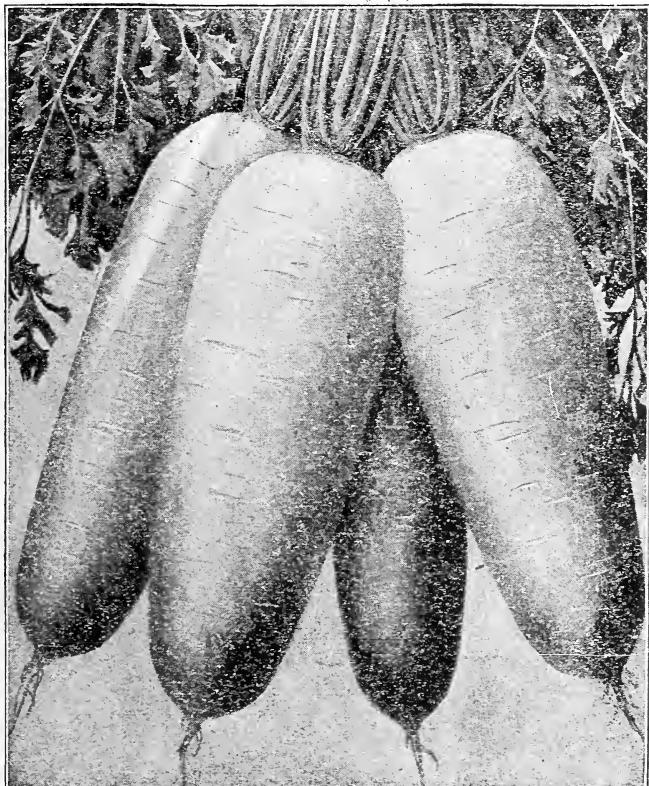
In offering to the public the New York Carrot, we do so with utmost confidence.

It was placed with several market gardeners the past seasons, whose reports are flattering. Tops of medium size, roots cylindrical, smooth bright orange becoming yellow in the center, without core. For extra sweetness this is all by itself. Pkt., 5c and 10c; per oz., 20c; $\frac{1}{4}$ lb. 55c; lb., \$2.00.

CROSBY'S
EGYPTIAN

Our strain of this excellent beet is always maintained at a standard of such reliability that it will yield the best results and give the greatest satisfaction to our patrons.

This has been selected to maintain the best results for the market as well as for house gardens. It is always uniform earliness, and a



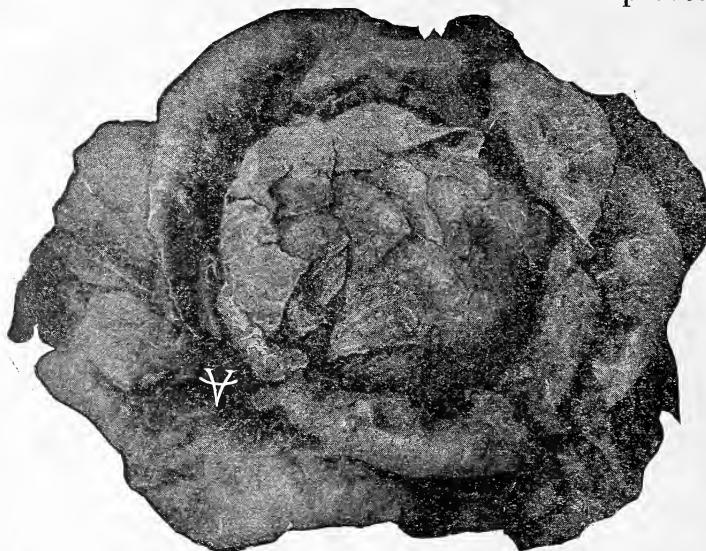
New York

Improved

This is the mammoth head lettuce so popular in California, from whence it is shipped to the Northern market, arriving in splendid condition. The immense heads are solid, heavy, beautifully blanched to a creamy white with bright green outer leaves. The quality is unsurpassed, being tender, crisp and sweet.

Pkt., 5c and 10c;
oz., 20c; $\frac{1}{4}$ lb.,
Heat Resisting 60c; lb., \$1.75

Finest Head



ITALIAN RED ONION

Is globular in form, an enormous producer, often weighing from three to five pounds. Flavor is very mild, in fact, surpassed by no other onion. It is very prolific and can be grown successfully on any soil, provided it receives the required irrigation.

The crop has never known to be a failure, and will always produce from one-third to one-half more than any other onion. **In packets only, 25c each.**

GOLDEN CREAM SWEET CORN

Golden Bantam and Country Gentlemen combined—this is a *late sweet corn*, possessing the quality of "Golden Bantam" in conjunction with Country Gentlemen. The kernels being long and slender, and the ears somewhat larger than either of the parent stocks themselves. **Pkt., 10c; lb., 30c.**

BULBS FOR FALL PLANTING

On or about October 1st we issue a Bulb List of Holland, French, and Japanese Bulbs, Plants, etc., which we would be pleased to mail on application.

This list includes explicit directions for cultivation of bulbs for indoor or outside growing, also treatment of bulbs after flowering.

The Jacob Kaufmann Co. Standard in Seeds is the highest it is possible to attain today. And yet we aim for further betterment.

INTRODUCTION

We again extend our sincere thanks to our friends and customers for their continued and increased patronage.

Because of the great war which has spread throughout the world, there is a shortage of production seeds, and in addition there is an added demand for seed stocks for the production of more food. The conditions have forced higher prices. There is a real shortage in seeds throughout the world, and the war has placed an added burden upon seed merchants to furnish adequate supplies for the needs of the people. Because of this increasing demand for choice seeds, we urge you to order at once, so you may be sure of procuring what you need.

In mailing you our catalogue, we know that we must give you as nearly as possible the same service as if you were in our store. Our motto—*We not only test our seeds, but sell only those which have stood the test.* All seeds that we offer for sale must be up to the high standard of purity and germination which we have set as our guide to be governed by. Which no doubt explains the almost universal satisfaction among our customers who have traded with us in the past.

Success with seeds, bulbs, and plants, depends as much upon the proper planting, soil, water, weather and other conditions as upon the seed. We exercise every care in the selection of the seeds we offer for sale. We will not knowingly send out anything but seed of the highest quality and germination.

Most of the failures with seeds, plants and bulbs are due to causes entirely beyond our control, such as unfavorable weather or soil conditions, too deep or too shallow planting, etc., which renders it impossible for us to guarantee success.

The JACOB KAUFMANN CO., in common with other reliable seedsmen, sell their goods subject to the following disclaimer:

We give no warranty, express or implied, as to description, quality, productiveness or any other of any seeds, bulbs or plants sent out, and will not be in any way responsible for the crop.

If the purchaser does not accept the goods on these terms, they are to be returned at once to us.

IMPORTANT

When sending money to cover parcel post, always allow for one pound more than weight of goods purchased, as package when ready for mailing will weigh more than the pound.

WHEN AND HOW TO ORDER

By following the instructions herein given it will aid the purchaser as well as ourselves in filling orders promptly.

Order early and you will have the seeds at hand when you are ready to plant, and you are sure of getting the varieties you desire before stock is sold out, which happens in some sorts every season.

Prices—The prices are net, and do not include free transit except for seeds in packets. Ounces and pound vegetable seeds to Canada, 16 cents per pound.

Prices of large-sized seeds like Peas, Beans, Corn, etc., and put up in 10c or 15c packages do not include free transit.

In some instances the prices for large quantities may fluctuate according to market. We invite your communication to obtain our best prices at the time of corresponding.

Name and Address—Be sure to sign your name and address on every order. We often receive orders without name or address, and it is impossible to always trace them. If you do not receive your order in a reasonable time notify us by sending a duplicate, stating the amount inclosed. We aim to forward all orders same or next day after receipt.

Remittance should be made by Post Office money order, bank draft or express order. If sent in any other way it is at sender's risk. We accept postage stamps if proper care is taken to prevent adhesion. Personal cheques, especially for small amounts, are less desirable, and 15c extra to cover cost of collecting through bank should always be added to the amount.

C. O. D. Parcels can be sent only to money order offices. In addition to the amount of the regular postage, 10c extra for collection must be added.

Market Gardeners and Retailers should ask us for special prices which will be gladly furnished. Such requests should always be written on business letterheads or else proof should be furnished that querist is entitled to such reduced prices.

DOMESTIC PARCEL POST RATES

On Seeds, Plants, Bulbs, Roots, Books, Tools, etc., within the United States and Possessions

	First pound or fraction	Each additional pound or fraction
Local Delivery—Seattle, only	5c	½c.
First Zone—within 50 miles of Seattle, Wn.....	5c.	1c.
Second Zone—within 50 to 150 miles of Seattle, Wash.....	5c.	1c.
Third Zone—within 150 to 300 miles of Seattle, Wash.....	6c.	2c.
Fourth Zone—within 300 to 600 miles of Seattle, Wash.....	7c.	4c.
Fifth Zone—within 600 to 1,000 miles of Seattle, Wash.....	8c.	6c.
Sixth Zone—within 1,000 and 1,400 miles of Seattle, Wash.....	9c.	8c.
Seventh Zone—within 1,400 and 1,800 miles of Seattle, Wash.....	11c.	10c.
Eighth Zone—All over 1,800 miles of Seattle, Wash.....	12c.	12c.

FOR PARCELS WEIGHING 8 OUNCES OR LESS, containing seeds, bulbs or books only, the rate of postage to all zones is 1 cent for two ounces or fraction. (Over 8 ounces the parcel post rates apply.)

FOR PARCELS CONTAINING FOURTH CLASS MATTER—other than the above—up to four ounces is permitted to all zones at 1 cent per ounce. (Over 4 ounces the above zone rates apply.)

Five cents insurance up to \$25.00; 10c insurance from \$25 to \$50.00.

If you have no use for this Catalogue, kindly hand to a NEIGHBOR OR FRIEND.

On parcels costing over 25c postage, a war duty of 1c has to be paid; from 26c to 50c parcels, 2c, and for each additional 25c the war duty is 1c. Please don't forget to enclose this with your remittance.

Every variety of seeds has its own peculiarities, its advantages and drawbacks. For the benefit of those who are not so familiar with the various kinds of seeds for the vegetable garden, we offer below a list of those varieties which we would specially recommend if you would come to our store and ask our personal advice. More than likely a number of people would make a different choice, but we simply want to help out those who have not had any experience in growing vegetables.

WHAT TO ORDER

BEANS—(Dwarf) **Davis' Kidney Wax**, fine as pod and shell bean. **Burpee's Stringless**, best as pod bean.

BEANS—(Pole), **Lazy Wife**, best as shell bean. **Kentucky Wonder**, finest pod bean.

BEETS—**Crosby's Egyptian**, dark red, flat shape. **Eclipse Blood Turnip**, early, taproot. **Detroit Blood Turnip**, dark red, very tender.

CABBAGE—**Early Jersey Wakefield**, for early use. **Danish Ballhead**, for late or winter use.

CARROTS—**Chantenay**, good form, sweet and tender. **New York**, medium size, little core, very sweet.

CAULIFLOWER—**Snowball**, early with uniform head. **Veitch's Autumn Giant**, for late use.

CELERY—**Golden Self-Branching**, requires very little banking.

CORN—**Golden Bantam**, for the Northwest.

CUCUMBER—**Long Green**, for table use. **Boston Pickling**, for pickling.

KALE—**Dwarf Green Curled**, for table use. **Thousand Headed**, for chicken feed.

LETTUCE—**Grand Rapids**, a fine leaf lettuce. **Boston Market** and **New York**, best head lettuces.

ONIONS—**Yellow Globe Danvers**, good, hard and firm yellow onion. **White Portugal**, to be used for green onions.

POTATOES—**Early Rose**, good and early. **Burbank**, late, oblong variety, white flesh.

PEAS—(Dwarf) **Alaska**, smooth, for very early. Slendid for canning. Picking time to be observed very closely. **American Wonder**, early and sweet, wrinkled pea. **Laxtonian**, a little later than American Wonder, larger pods, grows slightly taller than American Wonder.

PEAS—(Tall) **Gradus or Prosperity**, large, well-filled pods. **Tall Telephone**, very productive, large sweet peas.

PUMPKIN—**Sugar or Pie**, fine grained flesh.

RADISH—(Round) **Early Scarlet Turnip**, white tipped. (Long) **Long Scarlet**, white tipped.

SPINACH—Round, thick leaved **Summer**, for spring and summer use. **Prickly Winter**, for fall sowing.

SQUASH—**Mammoth Summer Crookneck**, **True Hubbard**.

TOMATO—**Spark's Earliana**, best for the Northwest. **Dwarf Champion**, needs no supports.

TURNIP—**Purple Top Strap Leaf**, white with purplish top.

For more complete descriptions and comparisons we refer to our general list.

General List of JACOB KAUFMANN CO.'S FINE AND RELIABLE SEEDS

ARTICHOKE

Green Globe—Are cultivated for their flower heads. Pkt., 10c; oz., 50c.

Jerusalem Tubers—Grown for stock feed. 10c lb.; 50 lbs., 6c lb.

ASPARAGUS

1 oz. to 500 plants; 1 lb. per acre. Pkt., 10c; oz., 20c.

Conover's Colossal—The standard variety. Pkt., 5c and 10c; oz., 20c.

Palmetto—Early, prolific, bright green. Pkt., 5c and 10c; oz., 20c.

Columbia Mammoth White—A superior variety. Pkt., 5c and 10c; oz., 20c.

BEANS—DWARF WAX

Pkt., 10c; lb., 35c.

Culture—After all danger of frost is over, plant in drills 2 feet apart and 3 inches apart in the drills, 2 inches deep. Hoe often to keep down the weeds.

If you want beans of good rich quality, if you want a garden better than the average, if you want full pods of more than average size, use Farmogerm.

Farmogerm aids the soil in feeding the plants and furnishes the element of Nitrogen which the plant needs most, and which is very likely to be lacking in varying degrees in your soil.

Farmogerm will make your plants stronger, your soil richer for later purposes, your quality better, the expense is small the returns greater.

Black Wax—Pods fairly long, brittle and stringless; clear yellowish-white.

one of the best for market gardeners. The dry beans are kidney shaped, clear white, and a favorite for baking and canning.

Golden Wax—Pods long, nearly straight, broad and flat, and golden yellow; improved strain.

Flagelot Wax—Flat pods of large size, stringless, very meaty and fine flavor.

Detroit Wax—Excelling in some respects any other wax variety. Pods flat, good length and very broad.

Wardwell's Kidney Wax—A strong growing vine, long, flat and purely waxy pods, brittle and stringless, later than the Golden Wax, seed kidney shape.

Davis White Wax—Rustless and immensely productive. Very hardy and

Anthracnose, produces large, scabby, dead spots on the pods and the controlling measures are the selection of clean seed and spraying the plants with Bordeaux mixture.

Powdery Mildew, showing a white growth of fungus covering the surface of the leaves, especially in rainy or damp weather, should be treated with powdered sulphur.

Cut-worms and Flea Beetles can generally be controlled with dry arsenate of lead sprayed or dusted on the leaves.

BEANS—DWARF GREEN SHELL

Pkt., 10c; lb., 35c.

Horticultural Cranberry—Used as a green snap or shell bean, a standard sort.

Golden Cluster Wax—Early long stringless, fine quality pods in clusters, white seeded.

Broad Windsor—(English Horse Bean.) Makes a good green shell bean, very hardy, will withstand considerable frost.

Lazy Wife—Produces long, thick, meaty and stringless pods in clusters, easily gathered; an excellent green podded variety.

BEANS—DWARF GREEN PODDED

Pkt., 10c; lb., 35c.



Burpee's Stringless—One of the best green-podded varieties, pods round, tender, brittle and stringless.

Red Valentine—Round, meaty pods; very early and practically stringless.

Early Six Weeks—A long green-podded variety; plants strong and vigorous, a good sort.

Refugee or 1000 to 1—Vines large and spreading; very prolific; a late sort, excellent for canning.

Canadian Wonder—A fine green shelled variety, producing pods 10 to 12 inches long, in great abundance.

POLE OR RUNNING, GREEN AND WAX PODDED



Kentucky Wonder—A prolific variety, producing long, tender pods of excellent flavor, one of the best green podded beans for the family garden.

Kentucky Wonder Wax—A yellow podded Kentucky Wonder.

Henderson's Bush Lima—The earliest of bush lima beans. The beans are delicious, flavor of good quality, and very productive.

Field Bean—Market Variable. Write for sample and prices.

Scarlet Runner—Vines and flowers, brilliant scarlet pea-like blossoms, a good shell bean.

London Horticultural Cranberry Pole Bean—Used as a green or shell bean, of good quality; a standard pole sort.

Large White Lima—A vigorous grower, bearing large pods from 5 to 8 inches.

White Creaseback—An early, green-podded variety. Pods five to six inches in length, deeply creased or saddle-backed, and borne in clusters. Very fleshy and stringless; can be used as shell bean.

MANGEL, WURZEL AND SUGAR BEETS

Pkts., 5c and 10c; oz., 15c; lb., 85c.

Culture—Same as Beets.

Danish Sludstrup—Sludstrup is considered the best of fall mangels. In color it is reddish-yellow and of a distinct type. It contains the largest per cent of nutrient found in any sort. It is very hardy, grows well above ground and is easily pulled.

Mammoth Long Red—A large variety; producing immense crops. It grows much above ground, and is easy to harvest. The flesh is white, shaded

with red. Requires deep, loose soil.

Giant Yellow Intermediate or Gate Post—Roots very large, growing over half out of the ground; flesh firm and white, sweet and tender, an enormous cropper. small tap roots, flesh firm and fine

Yellow Globe—Immense size fine shape, grained; well adapted to shallow soils.

Golden Tankard—The best yellow-fleshed mangel in cultivation. It contains a larger percentage of sugar than the

red mangels. It has a small tap-root and grows largely above ground, yields enormously.

Lane's Imperial Sugar—An excellent variety and one of the best for stock feeding.

Giant Feeding Sugar—This magnificent Sugar Beet, while giving nearly as large a yield of easily grown and harv-

ested roots as a crop of Mangels, supplies a food of very much higher nutritive value, the roots for feeding purposes being really more valuable, pound for pound, than those of the very best strains of Sugar Beet, and the yield under equally favorable conditions being more than double.

BEETS

Pkts., 5c and 10c; oz., 20c; lb., \$1.50.

Culture—Beets require a rich, sandy loam. Sow in drills one foot to 15 inches apart, and when well started, thin to 4 to 6 inches. The seed will sprout better if soaked in lukewarm water 10 to 12 hours before planting.

Early Egyptian—Round flat shape, dark red color. A good table variety.

Crosby's Egyptian—More globe shaped than the Early Egyptian; very early and of fine quality; a desirable variety for the market gardner. (See Novelties, page 1.)

Eclipse Blood Turnip—An improved early kind, having a small top and taproot. The flesh is bright and dark red, tender and sweet. It attains a good size without becoming woody, and is a good keeper.

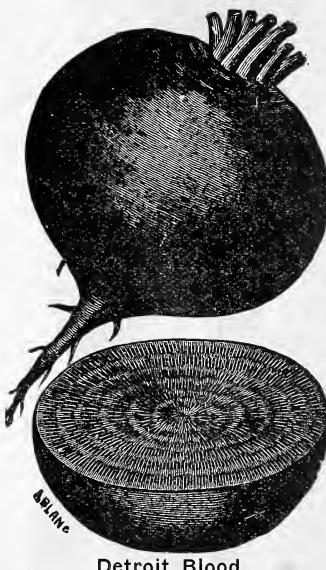
Crimson Globe—Handsome early or main crop variety, medium size, globe shape, skin smooth, flesh blood red, slightly zoned, never stringy.

Early Blood Turnip—An old standard variety, color dark red.

Detroit Blood Turnip Beet—An improved strain of the Early Blood Turnip Beet; remarkably uniform and smooth; fine grained and tender.

Spinach Beet, or Swiss Chard—Cultivated for its leaves, which make excellent greens.

Dewings' Blood Turnip—Smooth and handsome, of good color, medium size.



Half Long Blood—One of the best for winter use, never becoming woody.

BROCCOLI

Culture—Plant the seeds in hotbeds during March and April for an early crop. Transplant in June, in rows 3 to 4 feet apart and the plant about 2 feet apart in the row. For a late crop sow in beds, covering seed about $\frac{1}{2}$ inch deep. A rich soil is the element of success.

Columbia White—No other Broccoli can supply the place of our Columbia White for autumn and winter use. The well-formed heads are large white, firm in texture and mature early. To succeed the summer and early autumn Cauliflower making solid heads frequently weighing 5 lbs., and 10 to 12 inches diameter. Pkt., 10c; oz., 40c; lb., \$5.00.

Purple Cape—Similar to the white variety, excepting in color, which has a purplish brown tint. Pkt., 5c; oz., 30c; lb., \$4.00.

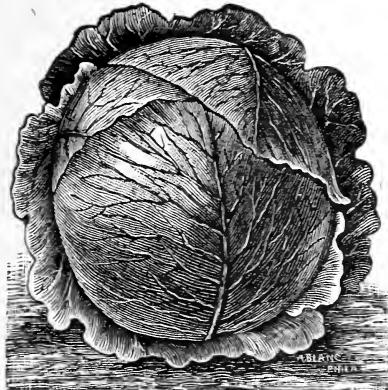
BRUSSELS SPROUTS

Culture—Same as Cabbage.

Improved Dwarf—The dwarfest and earliest of all varieties. Sprouts solid and excellent in flavor. Those who prefer small sprouts will greatly appreciate the improved Dwarf. Pkt., 10c; oz., 30c; lb., \$3.00.

CABBAGE

Culture—The soil should be a rich, heavy loam, with good drainage for the best results. For early varieties sow the seed in hotbeds during the winter months and when large enough transplant about 18 inches apart each way. Late varieties can be sown in the open ground during the spring months, transplanting about 2 feet apart each way.



Danish Ball Head

Jersey Wakefield—One of the best early varieties; heads solid pyramid shape, with few outside leaves; very hardy and will stand considerable frost. Pkt., 10c; oz., 85c; $\frac{1}{4}$ lb., \$2.50; lb., \$8.00.

Washington Wakefield—Fully as early as the Jersey Wakefield and nearly double the size; a sure header and desirable variety. Pkt., 10c; oz., 75c; $\frac{1}{4}$ lb., \$2.00; lb., \$7.50.

Early Winningstadt—One of the hardiest of the early varieties; heads decidedly pointed; resists cold, wet and pests to a degree which makes it very desirable. Pkt., 10c; oz., 75c; $\frac{1}{4}$ lb., \$1.25; lb., \$6.00.

Copenhagen Market—A new early variety, which will be very popular with market gardeners. It is the finest large, round-headed, early cabbage in cultivation. It has small core. The quality is extra fine and sweet. It matures as early as the Wakefields and will yield more to the acre in weight. Pkt., 10c; oz., 85; $\frac{1}{4}$ lb., \$2.00.

Henderson's Early Summer—A very popular flat-headed midseason cabbage, ten days later than Wakefield. Pkt., 10c; oz., 75c; lb., \$6.00.

Early Flat Dutch—A medium early kind, much resembling the Early Drumhead.

It grows low on the stem, and is a sure header; firm, fine grained, tender, and excellent. Keeps almost as well as the late kinds. Pkt., 10c; oz., 75c; $\frac{1}{4}$ lb., \$2.00; lb., \$6.00.

All Season—Large, round, flat heads; second early variety; does well in the fall and winter; a good sort. Pkt., 10c; oz., 75c; $\frac{1}{4}$ lb., \$2.00; lb., \$6.00.

Surehead—As the name implies, it is a sure header; large heads of good texture; a splendid keeping variety. Pkt., 10c; oz., 75c; $\frac{1}{4}$ lb., \$2.00; lb., \$6.00.

Premium Drumhead—Large, solid heads, often weighing 20 lbs.; a good winter sort. Pkt., 10c; oz., 75c; $\frac{1}{4}$ lb., \$1.75; lb., \$6.00.

Premium Flat Dutch—One of the best varieties for the winter market; large, round, flat heads, solid and firm; of good quality. Pkt., 10c; oz., 75c; $\frac{1}{4}$ lb., \$1.75; lb., \$6.00.

Drumhead Savoy—Improved strain; the best Savoy; large heads, tender and sweet; can be grown for either spring or winter use. Pkt., 10c; oz., 75c; $\frac{1}{4}$ lb., \$1.75; lb., \$6.00.

Danish Ball Head or Hollander—This is one of the hardiest cabbages in cultivation and endures both frost and drouth that would destroy other varieties.

Plants rather long stemmed, but compact, leaves very smooth but thick; of medium size; round and very solid; the hardest heading cabbage we know of, and the very best quality. Matures quite late, keeps well, and is considered by many the best cabbage to hold over for spring markets. Pkt., 15c; oz., \$1.00; $\frac{1}{4}$ lb., \$3.00; lb., \$10.00;

Red Dutch—A good variety for pickling; heads round and large. Pkt., 10c; oz., 75c; $\frac{1}{4}$ lb., \$2.00.

Danish Stone—A new early, hardy, short-stemmed, large, round, very fine deep red heads; of fine flavor. Pkt., 10c; oz., 75c; $\frac{1}{4}$ lb., \$2.00.

Erfurt Early Small—The best red for pickling. Pkt., 10c; oz., 75c; $\frac{1}{4}$ lb., \$2.00.

Cabbage Plants—See page 23.

There is hardly anything more aggravating than to sow seeds that don't come up. Time, labor, money and temper are lost!

Order your seeds from us,

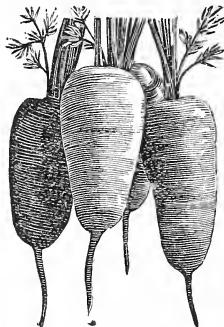
Because:

We not only test our seeds, but sell only those that have stood the test.

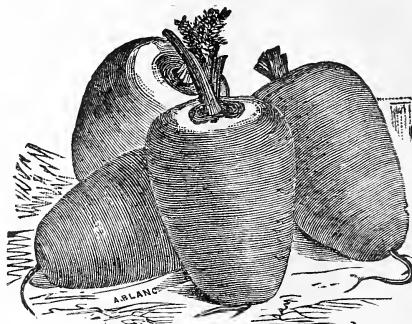
CARROTS

Pkts., 5c and 10c; oz., 15c; lb., \$1.25.

Culture—Sow early varieties as soon as the ground can be worked; late varieties from May to August. The soil should be of a light sandy loam, well fertilized and deeply dug; sow in drills about 1 foot to 15 inches apart, and thin to 5 to 7 inches, according to the variety.



Chantenay Carrot



Oxheart Carrot

Early French Forcing—Very early, small and good flavor; fine for bunching.

Chantenay—Half long stump-rooted, uniform and perfect in shape; tender and sweet; a good table sort. **Lb.**, \$1.50.

Danvers Half Long—One of the most generally used Carrots, either for the table or stock feeding; a heavy bearer of fine texture, being sweet and tender; color a light orange. **Lb.**, \$1.50.

Oxheart or Guerande—The best cropper of the short Carrots, either 4 to 5 inches long and 3 to 4 inches thick at the shoulder, slightly tapering, very stump-rooted; the best variety for heavy soils; color, rich orange red. **Lb.**, \$1.50.

Large White Belgium—Very productive, a good white stock Carrot. **Lb.**, \$1.25.

Early Scarlet Horn—Short thick roots, flesh fine grained, color deep orange; an excellent table sort.

New York—(Stump Rooted). Tops of medium size; roots cylindrical, smooth, bright orange; flesh orange becoming yellow in center, but with no distinct core. Of the finest quality and one of the most symmetrical and handsome of the medium sized sorts; excellent for the market or home garden. **Lb.**, \$2.00.

Improved Long Orange—The best of the long varieties; color orange-scarlet; a heavy cropper, mostly used for milch cows; makes a good table carrot; requires a deep soil.

Mastodon—The heaviest cropping Carrot grown; the flesh is white, solid, crisp and sweet; one of the best for horses and cattle. **Lb.**, \$1.25.

CELERIAC OR TURNIP ROOTED CELERY

Large Prague—Forms good thick roots, used in soups and stews; has a Celery flavor
Pkt., 10c; **oz.**, 20c; **1/4 lb.**, 70c.

Witloof—Known in restaurants as French Endive; treat as Endive, except that late in summer or fall it should be gradually banked up like celery. The stalks, when blanched, make a delicious salad. It is used by the French as a boiled vegetable. **Pkt.**, 10c; **oz.**, 20c; **1/4 lb.**, 30c.

CHERVIL

Curled—Very finely curled, resembling parsley; used in soups and salads. **Pkt.**, 10c; **oz.**, 15c.

CHICORY

Large Rooted—Used as a substitute for coffee, and the young blanched shoots are used for salad. **Pkt.**, 10c; **oz.**, 15c.

CAULIFLOWER

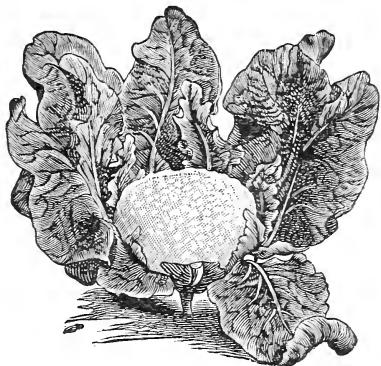
Culture—The same as for Cabbage, except that extra manure and plenty of water will pay upon Cauliflower. If the soil is dry, water frequently, and, if the plants could have a heavy mulch of hay or straw, it would keep the soil moist, and they would not suffer from drought. The early kinds should be strong enough to plant out not later than the middle of April; the late kinds may be planted out same time as Cabbage.

Early Paris—An early variety with medium-sized compact heads; an excellent sort, white and tender. Pkt., 10c; oz., \$1.25.

Danish Giant, Dry Weather—Is an early, large, solid white Cauliflower that can successfully withstand a drouth that would prove fatal to other varieties and will thrive splendidly in dry sections, being peculiarly adapted to their growing conditions, but, like all Cauliflower, must have rich soil and cultivation to give best results. Can also be grown under moist conditions and is a dependable market variety. Pkt., 25c; oz., \$3.00.

Early Dwarf Erfut—Extra early, forming good, solid, white heads. Pkt., 20c; oz., \$2.50.

Henderson's Snowball—The best and most popular early variety; will make uniformly fine heads, even under adverse conditions. Pkt., 25c; oz., \$3.00.



Veitch's Autumn Giant—A large, late variety; very hardy; heads well protected by the foliage, keeping it fit for use a long time. Pkt., 15c; oz., \$1.75.

Cauliflower Plants—See page 25.

Large Algiers—Large fine heads, fine for fall use. Pkt., 15c; oz., \$1.50.

CHIVES OR SCHNITTLOUCH

Chives—Has a mild flavor of young onions, and is used in soups and salads. Pkt., 10c; oz., 20c.

COLLARDS

A species of Cabbage, bearing a large mass of leaves on top of a stout stalk. **True Georgia**—The well-known variety; forms a very large, loose head; leaves tinted with purple. Pkt., 10c; oz., 20c; $\frac{1}{4}$ lb., 45c.

CORN SALAD OR FETICUS

Culture—Sow during August or early September, in drills one-fourth of an inch and 6 inches apart. If the weather is dry when the seed is sown, tread it lightly to insure germination. Keep weeds down with hoe. Just before the winter cover thinly with straw or leaves.

DON'T BUY cheap strains of Cauliflower Seed. Only the best select strains can be depended upon to produce a big percentage of large white, solid heads.

Get a Hand Cultivator for your Garden and you will save two thirds of the work. Gardening then becomes a pleasure. See our Tool List at end of this catalogue.

CELERY

Pkt., 10c; oz., 30c; 1/4 lb., 85c.

Culture—Plant in light rich soil, about March, cover the seed about $\frac{1}{4}$ inch, and firmly press when 3 inches high, transplant to get good, stalky plants, before they are finally set in the garden or field. Celery requires plenty of water from the time the seed is sown until ready for use. To get the best results, they should be grown on swampy or wet lands.

To succeed with Celery you must keep your plants growing constantly while young, if you allow them to "stand still" they will run up to seed later. Always cultivate as soon after watering as the ground is dry enough to work well. Fertilize heavily in the spring—and use nitrate later if needed.

All quotations are subject to change without further notice.



White Plume—A handsome, crisp sort, of easy cultivation; very early and extensively grown for market.

Golden Self-Branching—The most popular variety for early market use; tender, brittle and sweet; inner stems and leaves a golden-yellow when matured; requires very little banking. Pkt., 10c.; oz., 75c; 1/4 lb., \$2.50.

Giant Pascal—One of the best for fall and winter use; the stalks are large, solid, crisp and of a rich nutty flavor.

Large White Solid—An old standard sort, of vigorous growth; white, crisp and tender.

Golden Hearted—Rather tall, forming a large bunch and blanching white and crisp; very hardy and a good shipper.

Winter Queen—One of the best varieties for winter or spring use. It is stouter, thicker and heavier, with double the amount of heart of any other Celery; compact growth and blanches to a beautiful cream white; solid, crisp and nutty flavor.

Celery Plants—See page 23.

CORN—SWEET OR SUGAR

Pkt., 10c; lb., 30c.

Culture—Plant in hills, five or six kernels to the hill, 30 inches apart for dwarf varieties, 36 inches for tall varieties in well pulverized soil. Keep well cultivated as plants grow; draw soil toward them.



Peep O'Day—For flavor, sweetness and productiveness it is ahead of any other early white sweet corn. It will prove a money maker for the market gardener, and a valuable addition to our list

of corn for our short Western summers.

Golden Bantam—A very early variety; ears medium size, thickly set with delicious yellow kernels; quality the best; it has become a favorite with all who have tried it.

Golden Cream—(See Novelties)—Colored Sheet, page 2.

Early Minnesota—A good early variety for market and private gardens; ears eight-rowed; stalks grow about 5 feet high.

Early White Cory—An extra early variety of good quality; white grains especially when cooked; ears 6 to 7 inches long.

Country Gentlemen or Shoe Peg—A medium late variety and one of the best. Has long white cob closely filled with shoepeg kernels of fine flavor.

Black Mexican—A medium early variety; ears eight inches long, well filled with rather flat grains which are deep bluish purple of sweet flavor.

Mammoth White Cory—A large twelve-rowed corn of superior quality; stalks short, but bearing two or more large, fine-shaped ears, which is fit for use before most all other sorts; well adapted for this climate.

Early Evergreen—An improvement on

Stowell's; similar in appearance and general character, but a week or ten days earlier, and remaining fit for use somewhat later than that well-known sort; equal to Stowell's in all other respects.

Stowell's Evergreen—The most popular of the main crop varieties; large ears, with twelve to sixteen rows, which keep in good condition for boiling a long time.

FIELD, FODDER AND ENSILAGE VARIETIES

1b. 15c; 10 lb., \$1.25.

Early Yellow Canada—A flint variety, eight-rowed, very early and productive.

Leaming Improved—An early variety. Planted over a greater area than any other variety.

Pride of the North—An early dent variety. The kernels are long and of a beautiful color. A quick grower, thriving where the seasons are short.

Red-Cob Ensilage—Abundant herbage; tall growth.

CUCUMBERS

Pkts., 5c and 10c; $\frac{1}{4}$ lb. 40c.

Culture—For very early, sow in hotbeds upon pieces of sod or in small pots. They can be readily transplanted with a gain of about six weeks over those sown in the open ground. Plant out in rich soil when danger of frost is over, or protected by paper held down at the corners with a handful of earth. For pickles, sow from middle of June to first week in July. Sod land, turned over in fall, is the best for them. Plant in hills 4 feet apart, putting in a shovelful of well-rotted manure in each hill.

Early Frame—Plants vigorous and productive; fruit straight, bright green, tender and crisp; makes excellent pickles.

Early Green Cluster—Vines vigorous, producing the bulk of the crop in clusters; fruit short and uniformly thick, and ends crisp and of good flavor.

Boston Pickling—A distinct variety; color bright green, and a good producer; makes excellent pickles.

Arlington White Spine—A dark green variety, turning white when ripe; fruit straight and of even shape, tender and crisp; fine for forcing.

White Spine—A long, smooth variety; flesh tender, white and crisp; uniform in shape and exceedingly early.

Japanese Climbing—Forms long fruit of rich dark green color; flesh white crisp, and of fine flavor; the best variety for training to trellis.

Davis Perfect—Unequaled for color, shape and productiveness. Mr. Eugene Davis, the originator, also the originator of Grand Rapids Lettuce and Davis White Wax Bean, says: "I have been experimenting for several years and have at last succeeded in fixing a per-

fect type, combining quality, shape and color and productiveness. The quality is fine, very tender and brittle and with very few seeds; altogether an exceptionally fine table variety."



Long Green

Long Green—One of the most popular varieties for general use; the skin is dark green, the flesh solid, crisp and of good quality; forms fruit about 12 inches long; almost as early as the short varieties; makes fine, large pickles.

Extra Early Long Green—Similar to the Long Green, but about two weeks earlier.

CRESS

Curled or Peppergross—The leaves are used as a salad; has a warm, pungent taste; they should be sown at intervals of two weeks, as they are the best when young. Pkt., 5c and 10c; oz., 15c.

True Water—Thrives only when the roots and stems are submerged in water. Sow the seed thinly along the banks of any shallow stream early in the spring. Entirely distinct from the Curled Cress. Pkt., 5c and 10c; oz., 35c.

EGG PLANT

Culture—Egg Plants require a warm soil and climate, and will not give satisfaction where cool nights prevail; they require the same treatment as Tomatoes; as the seed is slow to germinate, they should be started under glass with moderate high temperature.

New York Improved—The leading variety; fruit large oval, and fine flavor. Pkt., 10c; oz., 70c.

Black Pekin—Fruit nearly round; skin smooth and almost black. Pkt., 10c; oz., 70c.

ENDIVE

One oz. to 100 feet of Drill. Pkt., 5c and 10c; oz., 20c.

This is a hardy vegetable, cultivated principally for a winter salad. Sow from May until August for a succession of crop; tie the leaves closely together to blanch them.

Green Curled—Very curly; a favorite sort for winter; plants attractive.

Broad-Leaved Batavian—A variety having wide, thick leaves, straight at the edges and curved toward the center; color dull green.

White Curled—Leaves pale green; grows to a large size; always crisp and tender.

KALE OR BORECOLE

Pkt., 5c and 10c; $\frac{1}{4}$ lb., 65c.

Culture—Cultivate the same as for Cabbage, of which it is a species, forming a mass of curly leaves. Seed can be sown in September and be ready for use in winter; very hardy and improved by frost.

Dwarf Green Curled—Leaves bright green, curly and tender.

Tall Green Scotch—Grows about $2\frac{1}{2}$ feet high, leaves dark green, very hardy; will stand the winter.

Thousand Headed—See Field Seeds, page 25.

Jersey Winter Kale or Marrow Cabbage, White. See Field Seeds, page 25.

KOHLRABI

Pkt., 10c; $\frac{1}{4}$ lb., \$1.00.

An excellent vegetable for any garden, and used more extensively each year, forms a bulb above the ground, which should be cut while young, as it becomes tough and stringy if allowed to remain too long. Sow as soon as the ground can be worked, in drills 18 inches apart, thin to 8 inches.

Early White Vienna—Standard market sort; flesh white and tender.

Early Purple Vienna—Bluish-purple, similar to the white, except in color.

LEEK

Cultivate the same as for Onions, except they should be hilled up to blanch. Is preferred by many for soups and stews on account of its mild flavor.

American Flag—A large, strong growing variety, of good flavor, the standard market sort. Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 75c.

LETTUCE

Pkt., 5c and 10c; oz., 20c; 1/4 lb., 40c.

Culture—Sow as soon as the ground is in condition at intervals of two weeks during the season, in drills 15 inches apart; drop seed about $\frac{1}{2}$ inch deep; when large enough, thin to 8 to 10 inches. Lettuce does well in most any good garden soil.

Early Curled Silesia—An early variety of dwarf, compact habit, crisp, golden and finely curled leaves.

Black Seeded Simpson—Has a large mass of fine, brittle leaves of light green color; it is larger and less curled than the Early Simpson; remains tender a long time.

Grand Rapids—One of the best for forcing; its light-green color makes it very attractive.

Prize-Head—One of the best loose bunching varieties. Leaves tinged with red grows quickly.

Hanson—One of the best large heading varieties; crisp and brittle; leaves curl and flavor excellent.

Big Boston—A light green cabbage variety; slightly tinged with brown in the head. A popular market sort.

Boston Market—One of the best for forcing or early outdoor planting. Plants medium size, having thick, dark green leaves. When grown forms solid heads which are crisp and tender.

New York—This is the mammoth head lettuce so popular in California, from whence it is shipped to the Northern market, arriving in splendid condition. The immense heads are solid, heavy, beautifully blanched to a creamy white, with bright green outer leaves. The quality is unsurpassed, being tender, crisp and sweet. See page 2.

Paris Cos or Romaine—A distinct variety forming upright heads.

California Cream Butter—Forms a large head, which is very buttery, and of a rich golden-yellow inside, bright green variety and a good shipping sort.

MELONS—MUSK

Pkt., 5c and 10c; oz., 15c.

Melons require a light rich, sandy soil and should not be planted until all danger of frost is over. Plant in hills 8 feet apart and 1 inch deep, 6 to 8 to a hill, and when plants are well established thin to 3 plants.

Emerald Gem—This is a variety of excellent quality; it is of medium size. The skin is white ribbed, perfectly smooth and of deep emerald green color, and ripens to the green rind.

Rocky Ford—The most popular market variety, fruit slightly oval, and finely netted, seed cavity small; flesh thick and sweet to the rind.

MELONS—WATER

Peerless—Rind thin, light mottled green, flesh red and solid to the core; a good early variety. Pkt., 5c; oz., 15c.

Citron—(Red or Green Seeded.) Round and handsome; for preserving only. Pkt., 5c; oz., 15c; 1/4 lb., 25c; lb., 75c.

Kleckley's Sweet—A splendid sort for home use or near markets. Vine vigorous and productive; fruit of medium size; color dark, mottled green in two shades, forming indistinct stripes. Flesh a beautiful bright rich red. Pkt., 5c; oz., 15c; 1/4 lb., 25c.

MUSTARD

The leaves make excellent greens of sharp, pungent flavor, and are cooked the same as Spinach. Sow the seed in early spring in drills at intervals to secure a constant supply of fresh greens.

White English—A light green variety with tender leaves, seeds light yellow. Pkt., 5c; oz., 15c.

Giant Southern Curled—A large variety, forming a large mass of finely curled leaves. Pkt., 5c; oz., 15c; 1/4 lb., 35c; lb., \$1.10.

FARMOGERM is a practical success. A \$2.00 package used on a leguminous crop will produce as much Nitrogen as 8 tons of manure.

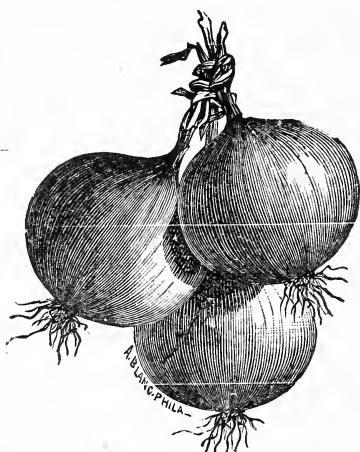
ONIONS

Culture—For the best results in Onion growing, the soil should be deep and rich; bottom land, rather loose texture being preferred.

Sow $2\frac{1}{2}$ or 3 lbs. of seed per acre, as early in the season as the ground can be put into proper condition, using some good fertilizer or manure supplemented with Bone Meal, Muriate of Potash, and in some cases Nitrate of Soda, the latter often being used after the plants are up, while the other fertilizers are worked into the soil before the seed is sown. Hardwood ashes may take the place of the Muriate of Potash.

Thorough clean cultivation during the growing season is necessary.

To be sure of a good crop, sow none but the best seed—it may cost a little more than a cheaper grade of seed, but it is worth more than the difference in the price.



Yellow Globe Danvers

Red Weathersfield—A large, red variety of superior keeping qualities, deep purplish red, slightly flattened. Pkt., 10c; oz., 30c; lb., \$3.00.

Southport Red Globe—An exact counterpart of Southport Yellow Globe in shape. Skin deep purplish red; flesh

white. Best for winter use; keeps long. Pkt., 10c; oz., 30c; lb., \$3.00.

Yellow Globe Danvers—A good, hard firm flesh variety; fine grained, almost globe shape, with small neck; a good keeping and shipping onion. Pkt., 10c; oz., 30c; lb., \$3.00.

Yellow Flat Danvers—An old standard variety, color bright orange-yellow, very hardy and a sure cropper. Pkt., 10c; oz., 30c; lb., \$3.00

Australian Brown—An extra early, sure bottoming variety, resembles the Danvers in size and form, very solid, of brown color; fine keeper. Pkt., 10c; oz., 30c; lb., \$3.00.

White Globe—A handsome white globe-shaped variety; flesh fine, very white, rich and sweet. Pkt., 10c; oz., 40c; $\frac{1}{4}$ lb., \$1.25; lb., \$4.00.

White Portugal—The most popular of the onions; flat on the bottom and thick toward the top; used most exclusively for bunching. Pkt., 10c; oz., 40c; $\frac{1}{4}$ lb., \$1.25; lb., \$4.00.

White Queen—A very early, small white onion, of mild flavor, fine for pickling. Pkt., 10c; oz., 50c; $\frac{1}{4}$ lb., \$1.50; lb., \$5.00.

ONION SETS

Plant in drills about 12 inches apart and 4 inches in the rows. They must have high culture.

Yellow Onion Sets, lb...... 20c

White Onion Sets, lb...... 25c

Egyptian Sets, lb., 30c.

OKRA

White Velvet—Very productive and superior in flavor to any other variety. Pkt., 5c; oz., 15c; lb., 75c.

PARSNIP

Pkt., 5c and 10c; oz., 15c; lb., \$1.50.

Parsnips thrive best on a rich, sandy soil, deeply dug; sow early in the spring in drills 18 inches apart; as they are improved by frost they should be left in the ground for spring use.

Hollow Crown—Roots white and tender, with a smooth, clean skin.

Sweet Marrow—Roots smooth and very fine grained, sweet and tender; the best for the family garden.

PARSLEY

Pkt., 5c and 10c; oz., 15c.

Used for garnishing in green state; can be dried and rubbed into a powder for winter use. Sow in drills one foot apart and half an inch deep. Seed slow to germinate; should be soaked in tepid water a few hours before planting.

Double Curled—Very finely curled, of dark green color; fine seasoning.

Triple Curled—A popular dwarf variety; finely curled. Same price as Double Curled.

Moss Curled—A moss curled variety of green color and very ornamental; the best for garnishing.

Turnip Rooted—The roots are the edible portion, and are used in soups and stews.

SEED POTATOES

Do not work the soil when it is wet, as this has a tendency to make it lump and bake and may put it in such shape that nothing can thrive in it. Wait until it is just dry enough to crumble away nicely when turned over, and if you will press the dirt firmly down on the seeds, getting right in the row and tramping the soil down with your feet—they will germinate quickly even in comparatively dry soil. Any extra work in carefully preparing the soil will more than repay you in the increased results, and always remember that constant and thorough cultivation is almost equal to water and fertilizer both, and will insure a good crop even in a dry season, and on ordinary soil.

New land must be thoroughly broken up and cultivated in order to kill out the wild nature, as new ground in the wooded sections of the Pacific Coast rarely produces bountiful crops the first few seasons without careful culture, fertilizing and rotation.

It pays to fertilize and cultivate to supply ready plant foods to the growing crops, as many years of accumulation of Fir and Pine needles will sour the ground, and until they rot and decay are detrimental to crop growth, but if properly worked and fertilized, good and profitable crops can be harvested from the beginning.

Select a rich soil, plant in rows 3 feet apart, and 12 inches apart in the rows, about 6 inches deep. Cut tubers so as to have one or two good eyes, and let stand for two or three days before planting. Do not use manure, for it has a tendency to produce scab, unless well rotted.

Early Ohio—Oblong shape, pink skin, shallow eyes; can be marketed before fully matured.

Early Bovee—Best of the early sorts, maturing before Early Rose, and more productive. Fine quality, color pinkish and uniform size.

American Wonder—An early, pure white, handsome appearance, splendid quality and very productive.

Netted Gem—Russet rough skin, oblong in shape; excellent for baking.

Early Rose—A popular early variety which gives satisfaction in most all sections.

Gold Coin—A good main crop variety, slightly oblong; the eyes are small, skin thin, flesh fine grained, and cooks dry and mealy.

Burbank—A well-known and fine late variety, oblong in shape, skin white and very smooth, flesh fine grained.

Owing to the unsettled market on Potatoes we have omitted prices. Drop us a postal—we will quote prices.

FORMALDEHYDE FOR POTATO SCAB

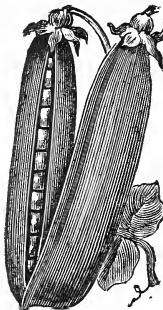
Soak the tubers before cutting for one hour and a half in a solution of 1 lb. (or pint) of Formaldehyde to 30 gallons of water. The potato fungus lives in the soil and on old vines; hence it is wise to keep it off your land by using Formaldehyde for your seed potatoes.

Prices, pint bottle, 75c; sent by Freight or Express only, at purchaser's expense. Cannot be mailed.

PEAS

Pkt., 10c; lb., 30c.

A light, dry soil is best for peas, although they succeed in most any ground. On too rich soil they have a tendency to run to vines. Plant dwarf varieties in drills 2 feet apart and tall sorts 3 feet apart, cover about 3 inches. Hoeing will well repay the time and trouble. Wrinkled sorts are marked with a star (*).



Alaska—Pods well filled with medium sized bluish-green peas, of excellent flavor; extra early. Pkt., 10c; lb., 25c.

American Wonder*—The best dwarf wrinkled variety for all purposes, prolific, bearing short, well-filled pods, containing 6 to 7 large, exceedingly sweet, tender and fine flavored peas.

Premium Gem*—A good dwarf wrinkled variety, taller, more prolific and a little later than the American Wonder; sweet and fine flavor; 18 inches high.

Laxtonian*—A new, early, dwarf, robust, large podded pea of superior excellence; often referred to as "Dwarf Gradus," and is said to surpass Gradus in yield and quality, with the added advantage of dwarfer growth, averaging 16 inches. The large pods are well filled, holding 8 to 10 peas. Laxtonian

is so highly recommended that you should give it a trial.

Gradus or Prosperity*—The best of the large early peas; very hardy; can be planted almost as early as the smooth varieties; pods large and well filled with fine flavored peas.

Stratagem*—One of the best of the large podded peas; the pods are of immense size, filled with large dark green, wrinkled peas of the finest quality; vine of medium height, but very stocky, with very broad, light green leaves, and bearing an abundance of large, handsome pods.

Dwarf Telephone*—The vines are vigorous, of a branching habit and bear immense quantities of large dark green pods, containing from 8 to 10 fine flavored peas; a favorite with the market gardeners; 2 feet high.

Teddy Roosevelt*—Resembles the Telephone in color of pod and foliage and habit of growth, but the pods are large and shell out nearly twice as many peas, 5 feet high.

Telephone, Tall*—A great favorite with our market gardeners. Immensely productive, of the finest quality and excellent, sugary flavor; vines strong; the pods are of large size, filled with large luscious peas; height four feet.

Dwarf Gray Edible Pod—Vines grow about 18 inches high, with purplish blossoms; the pods are edible and cooked like beans.

PEPPER

Pkt., 10c; oz., 50c.

Sow seeds in hotbeds, and when the weather becomes warm plant in warm, mellow soil, in rows 18 inches apart and 12 inches apart in the rows.

Large Bell or Bull Nose—A large, mild thick fleshed variety, the best for making stuffed pickles.

Long Red Cayenne—A strong pungent va-

riety, having long pointed fruit; fine for seasoning.

Ruby King—A large scarlet fruit of mild flavor. Vigorous growing plants, producing from 8 to 16 handsome fruit.

COMMERCIAL FERTILIZERS PROFITABLE

A 100-lb. Bag of High Grade Commercial Fertilizer will contain more soluble than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than 2 tons of manure, and no weed seeds to worry over.

PUMPKIN

Pumpkins take the same treatment and soil as the melons. Care should be taken to keep them from other vining plants, as they hybridize easily.

Sugar or Pie—A small round yellow variety, flattened on the ends; flesh fine grained, sweet and prolific. Pkt., 5c and 10c; oz., 15c; $\frac{1}{4}$ lb., 25c; lb., 75c.

Japanese Pie—A crook-neck variety of fine quality, flesh deep yellow, seeds curiously marked like Japanese characters. Pkt., 5c and 10c; oz., 15c; $\frac{1}{4}$ lb., 25c.

Large Cheese—Grows to large size, flat and round, skin mottled light green and yellow, flesh very thick, sweet and

nutritious. Pkt., 5c and 10c; oz., 15c; $\frac{1}{4}$ lb., 25c; lb., 75c.

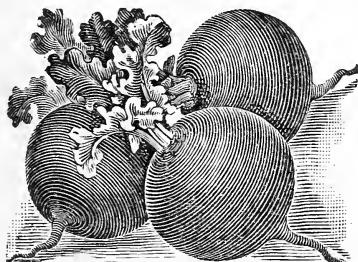
Quaker Pie—A distinct variety; very prolific. The pumpkins are nearly round in shape; creamy white inside and out when ripe; fine grained and rich in flavor, good keepers and among the very best for pies. Pkt., 5c and 10c; oz., 15c; $\frac{1}{4}$ lb., 30c; lb., 90c prepaid.

Connecticut Field—A large orange colored field variety, vines vigorous and productive; makes excellent pies and is a good keeper. Pkkt., 5c and 10c; oz., 15c; $\frac{1}{4}$ lb., 20c; lb., 60c, postpaid.

RADISH

Pkt., 5c and 10c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.50.

Sow early in the spring in rows 10 inches apart, and at intervals of ten days for a succession. The winter varieties sow in August and September. The soil should be light and rich, as a crisp radish cannot be produced in heavy soils.



Early Scarlet Turnip—A small turnip shaped variety, valuable for forcing or outdoor culture, short tops.

Early Scarlet Turnip, White Tipped—The leading market sort, tender and crisp; scarlet with white tip, short tops.

Early White Turnip—Mild and sweet, small tops, pure white.

French Breakfast—Grows about 2 inches long, with a decidedly stump root; color bright with lower end and tap root white; tender and crisp.

Long Brightest Scarlet—Long, uniformly straight, smooth, crisp and tender; excellent for the garden or market.

Long Scarlet White Tipped—An especially fine radish, color scarlet, shading to white at the tip; flesh very crisp and tender; a good market sort.

White Icicle—The finest pure white variety; very early, with smooth symmetrically shaped roots. The radish is not only crisp and tender when young, but reaches a large size.

White Strasburg—Large white Summer variety, a favorite with a great many.

Round Black Spanish—Slightly oval in shape, flesh solid and firm. A good winter sort for slicing.

China Rose Winter—A half-long, bright scarlet, stump-rooted winter variety, flesh firm and crisp and does not grow pithy until it runs to seed.

California White Mammoth (Celestial)—A well-known and popular winter variety, flesh and skin transparent white.

RHUBARB

Pkt., 10c; oz., 25c; lb., 75c.

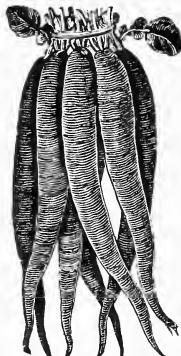
Rhubarb requires a rich soil, deeply dug. Sow in drills 18 inches apart and thin to 6 inches in the rows. We recommend planting the roots, as it takes two years to produce a crop from the seed.

Mammoth Linnaeus—Early, large size and fine quality.

Victoria Giant—Very large, later than the Linnaeus.

Rhubarb Roots—See page 23.

SALSIFY



Sow early in drills 12 inches apart, 1 inch deep, in a light, rich, sandy soil; when about 3 inches high, thin to 6 inches apart. Takes the same cultivation as the Carrots. Mashed and fried the flavor is much like the oyster.

Mammoth Sandwich Island—The leading variety; large, smooth, straight and of superior quality. Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 85c; lb., \$2.75, postpaid.

SQUASH

Pkt., 5c and 10c; oz., 20c; $\frac{1}{4}$ lb., 40c.

Culture—Sow in hills in the same manner and at the same time as cucumbers and melons, the bush varieties 3 to 4 feet apart, the running kinds from 6 to 9 feet apart.

Early White Scalloped Bush—A very early variety, bearing creamy-white scalloped squashes, 4 to 6 inches in diameter, known as the patty-pan.

Early Yellow Scalloped Bush—Similar to the white, except that the color is yellow, and not quite so early.



Mammoth Summer Crookneck

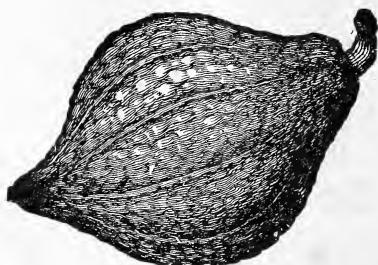
Mammoth Summer Crookneck—A large golden-yellow variety, thickly warted, tender and brittle.

Delicious—A dark green variety, with thick orange colored flesh, cooking very dry and mealy; can be used in the fall, but it is at its best in the winter.

Mammoth Chili—Grows to immense size, flesh orange, fine grained and sweet. Its size makes it valuable for stock feeding.

Delicata—Can be used as a summer or winter variety. Matures about the same

time as the summer sort. The quality is rich and dry, being very solid and heavy with small seed cavity and fine flavor. Color, orange-yellow splashed with striped dark green.



True Hubbard

True Hubbard—Fruit oblong and pointed, heavily warted, dark green with orange colored flesh, which is exceedingly dry, either baked or boiled; remarkably good keeper.

Boston Marrow—Skin thin, reddish-brown, flesh orange, and fine grained, and of excellent quality.

Vegetable Marrow—The true English strain; cream color, merging into deep yellow white flesh; about 9 inches long.

Food is of vital necessity, and from the day of our entry into the war America's army of food producers has rendered invaluable service to the allied cause by supporting the soldiers at the front through their devoted and splendidly successful work in the fields and furrows at home"—From a letter of appreciation to the farmers from Gen. John J. Pershing to Carl Vrooman, Assistant Sect'y of Agriculture, Oct. 1919.

SPINACH

Pkt., 5c and 10c; oz., 15c; 1/4 lb., 40c.

Sow early in drills one foot apart; plant every two weeks for a succession. For fall and winter use sow in August and September. The richer the soil the larger and more tender the leaves.

Long Standing—A deep green variety, with rather elongated smooth leaves; stands a long time without running to seed.

Prickly or Winter—Very hardy, leaves

smooth and narrow shaped; seeds prickly; an excellent fall and winter variety.

Round, Thick-Leaved—Leaves large, dark green, rather smooth and round at the top.

TOMATO

Pkt., 5c and 10c; oz., 35c.

Sow in hotbeds in March, and as soon as the plants have two or three leaves transplant to cold frames. When all dangers of frost is over, plant out in hills 4 to 6 feet apart each way.

Comet—Forcing—The very best forcing variety, and a general favorite with greenhouse growers. Color is a beautiful scarlet; fruits are of good size, very smooth and uniform. Pkt., 10c; oz., 50c.

Carter's Sunrise—Rich scarlet, medium size, solid delicate flesh. Very prolific. Pkt., 10c; oz., 35c.

Spark's Earliana—A perfect early tomato, almost seedless, and very solid; a vigorous grower, and very prolific; ripens thoroughly all over; color bright scarlet; one of the best varieties for this section. Pkt., 10c; oz., 30c.

Atlantic Prize—An extra early smooth tomato of good size, solid flesh, color bright red, popular in the vicinity of Seattle.

Dwarf Champion—A dwarf and compact variety, sometimes called the Tree Tomato, on account of its ability to stand alone without trellising; very early and smooth, solid meat; has no hard core.

Chalk's Early Jewel—Ripens a little later than the Earliana, more desirable, as the fruits are thicker through and more solid; of bright scarlet color, and of good quality.

Ponderosa—The largest Tomato; fruits are solid and of a purplish red color, sweet and of good quality.

Red Cherry—Fruit small and globe shape color bright scarlet, and very ornamental; valuable for preserving.

Yellow Plum—A plum shaped variety; growing in clusters; fruit yellow and of good flavor.

RUTA BAGA OR SWEDES

Pkt., 5c and 10c; oz., 20c; 1/4 lb., 50c; lb., \$1.75.

Cultivation same as Turnips.

American Purple Top—The most popular variety, grows to immense size, and a heavy yielder; flesh yellow, firm and of good flavor.

Yellow Swede—A large yellow variety of good quality; flesh firm and solid, globe shape.

Hurst's Monarch—Roots very large, oval in shape, growing well out of the ground, and yields large crops; flesh solid, fine grained and of good flavor.

Sweet Russian—A white fleshed Ruta-Baga, very hardy, solid, fine grained and tender.

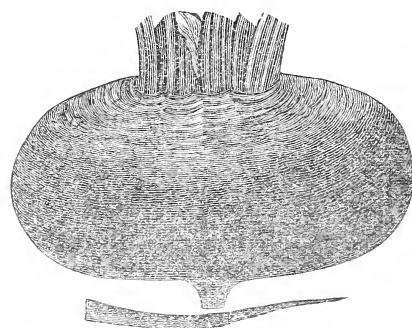
COMMERCIAL FERTILIZERS PROFITABLE

A 100-lb. Bag of High Grade Commercial Fertilizer will contain more soluble than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than 2 tons of manure, and no weed seeds to worry over.

TURNIP

Pkts., 5c and 10c; oz., 15c; $\frac{1}{4}$ lb., 40c; lb., \$1.75.

Turnips do best in highly enriched light sandy soil. Sow as early as the ground can be worked for early turnips, and for late crops in July, August and September, in drills 18 inches apart and 1 inch in depth. Thin to 6 inches apart in the rows.



Snowball—A very early and the most perfectly formed round white turnip. It has a short top, and a single tap root, flesh snow-white, solid and sweet.

Early White Milan—A pure white, extra early flat variety, tender and sweet, a good family sort. Pkt., 5c and 10c; oz., 25c; lb., \$2.25.

Early Purple Top Milan—A very early variety; tops small, erect and of strap-leaved type, bulb white, with a deep purple top, flesh white, firm and fine grained. Pkt., 5c and 10c; oz., 28c; $\frac{1}{4}$ lb., 50c; lb., \$2.00.

Golden Ball or Orange Jelly—Medium size, globe shape, flesh firm, fine grained and sweet, the finest flavored and best of the yellow turnips.

Cow Horn—A distinct variety, resembling the Carrot more than the turnip; it is long and white with a dash of green at the crown, of rapid growth; has proven itself a good stock turnip in this section.

Purple Top Strap Leaf—A leading white-fleshed variety, with purple top, flesh firm, tender and of rich flavor.

Purple Top White Globe—A valuable sort for either table or stock feeding; roots globe-shaped, white; a good fall turnip.

White Egg—A medium size oval or top shaped variety of quick growth; flesh firm, tender and sweet; a good fall turnip.

Yellow Aberdeen—A winter variety of medium size, generally used for stock feeding, yellow with purple top; flesh light yellow; firm and sweet.

Petrowski—A most distinct variety of early maturity. The flat roots average two and a half to three inches in diameter, and the skin is a rich deep orange-yellow, very smooth and entirely free from small rootlets. The firm, solid flesh is fine grained, crisp, light orange-yellow in color, and has a tasty flavor.

AROMATIC MEDICINAL AND POT HERBS

Those marked with a star (*) are perennial.

Anise—The seed especially being used for seasoning food. Pkt., 10c; oz., 25c.

Basil Sweet—Leaves used for seasoning soups, meats and salads. Pkt., 10c; oz., 25c.

Caraway—Seed used in flavoring bread, cakes, etc. Pkt., 10c; oz., 15c.

Catnip*—Leaves used for medical purposes. Pkt., 10c; oz., 40c.

Coriander—Seed used in flavoring pastry, confectionery, etc. Pkt., 10c; oz., 20c.

Dill—Seed and foliage used in seasoning, also as a medicine. Pkt., 10c; oz., 20c.

Fennel Sweet*—Leaves ornamental and used in flavoring. Pkt., 10c; oz., 20c.

Horehound*—Whitish hairy leaves, used in confectionery, also in medicines. Pkt., 10c; oz., 20c.

Lavender*—An aromatic, medical herb, stems are used in fancy work Pkt., 10c; oz., 25c.

Marjoram Sweet*—Leaves used both green and dried in seasoning. Pkt., 10c; oz., 25c.

Sage*—Used extensively for seasoning. Pkt., 10c; oz., 20c.

Savory, Summer—Leaves and stems used in flavoring. Pkt., 10c; oz., 20c.

Savory, Winter*—Used for flavoring. Pkt., 10c.

Thyme*—Has fragrant leaves. Pkt., 10c.

Tansy—Used medicinally as tea and bitters. Pkt., 10c.

Celery— $\frac{1}{4}$ lb. 25c; $\frac{1}{2}$ lb., 45c; lb., 80c.

Mustard— $\frac{1}{4}$ lb., 15c; $\frac{1}{2}$ lb., 25c; lb., 50c.

VEGETABLE PLANTS—ROOTS

Postpaid by Express		
Dozen	100	
Celery—Leading kinds.....	\$0.20	\$1.25
Tomatoes—Leading kinds ...	.25	1.50
Cabbage—Early or Late kind .15	.90	
Add 25c per 100 for Cabbage Plants by mail.		
Add 25c per 100 for Cauliflower Plants by mail.		

Asparagus—2 year old plants post paid per doz.	40c	per 50	\$1.25	per 100	\$1.75
by express per doz.	30c	per 50	\$1.00,	per 100	at \$1.40.
Cauliflower—Early Snowball, plants .....	.25	1.50			
Rhubarb or Pie Plant—Giant best hardy variety 1 year old; roots each	15c	per doz.	\$1.00	by express per doz.	75c.

NAPHTHALINE FLAKES—CABBAGE WORMS

One of the greatest troubles in this country is the cabbage worm, which destroys thousands of young cabbage plants soon after they have been set out. A small fly lays its eggs in a small hole bored into the stalk of the plant, and as soon as the larvae are hatched they start to eat the heart of the stalk; the plant withers and dies in a short time.

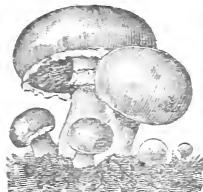
There is no cure for this pest, but to prevent the flies from laying their eggs a small quantity of Napthaline Flakes should be sprinkled around each plant. This to be repeated every few days until the plants are strong enough to withstand the inroads of the fly. You can thus save every plant you have. Napthaline Flakes. 25c lb.

MUSHROOM SPAWN

With intelligent care and good spawn, Mushrooms can be made to pay handsomely. They can be successfully grown in a dry cellar, under the benches of a greenhouse, or in sheds, where the temperature can be kept from 50 to 60 degrees through the winter. Our free pamphlet gives general instruction.

Lambert's Pure Culture--A new kind of spawn, without a doubt the best; superior to the common English. It comes in bricks weighing about 20 oz.; these are broken up into pieces the size of a walnut and put into the bed 1 foot apart each way.

A brick will plant 10 square feet. Price per brick, 25c; by mail 35c.



GRASSES AND CLOVER

GRASSES

Grass, and especially Clover, seeds are divided into three or four grades and sold to the trade by samples. The varieties we offer are of the highest germinating qualities, and are not to be classed with cheaper grades. Prices quoted are those prevailing when this catalog goes to press (January 15th). When wanted in quantity write for prices and samples, as they are subject to market changes.

Velvet Turf—A well-blended and carefully prepared mixture of the finest dwarf growing grasses that will produce a permanent thick and velvety sward of grass in four to six weeks.

It is improved both in root growth and firmness of texture by frequent mowing. Where an especially fine lawn is desired we recommend it as the best mixture. Sow one pound to 250 sq. feet of lawn. 1 lb., 50c;

Agrostis Canina—Rhode Island Bent Grass. Resembles the Red Top, but is of dwarf habit, with shorter and narrower leaves. One of the best grasses for lawns. It adapts itself to almost any soil. 50 lbs. to acre. Lb., 50c; 10 lbs., \$4.50.

Agrostis Stoionifera—(Creeping Bent.) The compact creeping, rooting stems make a strong, enduring turf, improved by constant trampling; does best on low bottom land, especially if some-

GRASSES—Continued

what sandy; being of fine texture, makes a valuable lawn. If sown alone use 50 lbs. to acre **Lb., 90c.**

Agrostis Vulgaris—(Red Top.) A hardy perennial, succeeds best on moist land, but will accommodate itself to a variety of soils, even to quite dry situations; height 1 to 2 feet; makes a fine hay mixed with Timothy. Solid seed, 30 lbs. to the acre; in chaff, 50 lbs. to the acre. Solid seed, **lb., 30c.**

Anthoxanthum Odoratum—(Sweet Vernal.) True perennial, valuable as a mixture with other grasses for a permanent pasture. 3 lbs. to acre. **Lb., \$1.00; 10 lbs., \$9.00.**

Anthoxanthum Odoratum Puelli—(Annual Sweet Vernal.) Much smaller than the perennial and of less value. **Lb., 75c; 10 lbs., \$6.00.**

Blue Grass Kentucky—(*Poa Pratensis*.) A true perennial, lasting indefinitely and improving each year. One of the best grasses for lawns; also valuable for pastures, being nutritious and productive. For lawns sow 100 lbs. to the acre. **Lb., 40c; 10 lbs., \$3.75.**

Meadow Fescue (Festuca Pratensis)—Perennial, grows 3 to 4 feet high. Roots deep, thus resisting drouth. It succeeds on any soil, yields a heavy crop of superior hay, one of the best grasses for pasture, being valuable to mix with other kinds. If sown alone, use 40 lbs. per acre. **Lb., 35c; 10 lbs., \$3.25.**

Cynosurus Cristatas—(Crested Dogtail.) A stoloniferous perennial. **Lb., 45c.**

Orchard Grass—(*Dactylis Glomerata*.) One of the grasses most used in permanent meadows, either for pasture or mowing. It is hardy and productive, will grow anywhere and make excellent hay. Should be cut before it flowers to get the best hay. It stands considerable shade. If sown with other grasses its tendency to grow in tussocks is diminished. Height 3 feet. 50

to 60 lbs. to acre. **Lb., 35c; 10 lbs., \$3.25.**

Perennial Rye Grass—(*Lolium Perenne*) —A strong hardy growing perennial grass noted for its nutritive qualities. It is equally valuable for both grazing and hay. For lawns it is recommended by many gardeners. If sown thickly it makes a fine lawn. Use 40 lbs. per acre. **Lb., 30c; 10 lbs., \$2.50.**

Italian Rye Grass—(*Lolium Italicum*) Practically an annual, although under favorable circumstances will last two or three years. It is a rapid grower, and will withstand extreme temperatures, remaining green throughout the winter and retaining its freshness in the hottest months. When sown thickly with other grasses it makes a dense turf, giving much satisfaction on lawns. Height 1½ feet. 50 lbs. to acre. **Lb., 25c.**

Pacys Rye Grass—(*Lolium Perenne*.) A carefully selected, short-seeded, dwarf growing strain, suitable for lawns. Makes a fine green turf in three weeks. **Lb., 30c.**

Timothy—(*Phleum Pratense*.) Produces large crops of hay on moist loamy or clayey soil, not so well suited for light sandy soil. It withstands drought, cold and extreme heat. It should be cut when flowering; if left later the hay becomes hard and coarse. Height 2 to 3 feet. 20 lbs. to acre. **Lb., 20c.**

Soudan Grass—Soudan Grass was brought into the United States in 1909. It has been thoroughly tested since then and has been found to be a most valuable crop for the West. It stands dry weather and makes a fine crop of hay that is superior to Millet hay and equal to Timothy. Under ordinary conditions the yield is from two to four tons of hay per acre and under irrigation eight and ten tons per acre. In rows it takes from 4 to 6 pounds per acre, and when in drills or broadcast 16 to 24 pounds. Price per lb., 35c. Write for prices in quantities.

CLOVERS

Prices subject to market changes. Write for prices.

Alfalfa—One of the most valuable and largely grown forage plants. It requires a rich, deep, well-drained soil. It has a long tap root, in loose soil descending 10 to 12 feet, and withstanding great droughts. Should be sown in early fall or spring at the rate of 20 lbs. to the acre. The crop should be cut when the

plant is coming into bloom. Will produce 3 to 5 crops of hay in one season. 2 to 3 feet high. **Lb., 30c; 10 lbs., \$2.75.**

Turkestan Alfalfa—It is said to be more productive and hardier than the ordinary variety; also withstands droughts better. **Lb., 35c; 10 lbs., \$3.25.**

Alsike or Hybrid Clover—(*Trifolium Hy-*

CLOVERS—Continued

bridum.) Succeeds best in cold, stiff soil and marshy lands, which are too wet for other varieties. It withstands cold and grows in high altitudes; blossoms make fine honey; a perennial. 1 to 2 feet high. Lb., 40c.

Bokhara Clover—(*Melilotus Alba*.) Valuable sort for soiling and for ensilage and bees. Grows from 3 to 5 feet high; sown in rich soil may be cut three times; lasts for years, if cut before flowering. 15 lbs. to the acre. Per lb., 35c.

Red Clover—(*Trifolium Pratense*.) On

deep, rich soil it will produce two crops in a season; valuable for hay, pasture or for light soiling; 12 lbs. to the acre. Lb., 50c.

Mammoth Red Clover—(*English Cow Grass*.) Lasts longer and grows larger than the medium; fine for plowing under. Lb., 50c.

White Clover—(*Trifolium Repens*.) Makes an excellent turf and stands constant trampling; dwarf habit, stems creeping and rooting at the joints; spreads rapidly and is very hardy. Used extensively in lawn mixtures. 10 lbs. to the acre. Lb., 70c; 10 lbs., \$6.75.

FIELD SEEDS

Buckwheat, Japanese—Extra large grains; yield enormously; makes good flour and stands up well. No stock.

Corn—For Field, Fodder and Ensilage varieties, see page 13.

Kaffir Corn, White—Non-saccharine; makes excellent fodder in all stages of growth; seed used in mixed pigeon and poultry foods. Market price.

Feterita—This is the most recent non-saccharine sorghum to command the attention of "dry farmers" on account of its wonderful yield and drought resistance; has given immense crops. Makes splendid fodder, as well as giving a good grain yield. Try **Feteria**, 5 lbs. if sown broadcast. Lb., 15c; 10 lbs., \$1.25.

Barley—White Hulless Barley is entirely beardless, half-tone, and when threshed is hulless, like wheat. It produces 35 to 80 bushels of grain per acre. It is better than corn for hogs. Market price. Write for prices.

Beardless Barley—Very early and free from beards; makes splendid hay for work horses. It is sometimes impossible to get seed which is absolutely true and it is liable to produce a small percentage of bearded heads. Write for prices.

Common Barley—Specially selected and re-cleaned seed. We will be pleased to furnish samples on request. Write for prices.

Buckwheat, Silver Hull—Early and productive. Lb., 10c; 10 lbs., 65c.

Flax Seed—Sow about 60 to 90 lbs. to the acre. Lb., 15c.

Kale, 1000 Headed—Cow—The demand for this wonderful forage plant, proves it to be the most valuable for Pacific Coast dairy and stockmen. Cow Kale should be grown in the same manner

as cabbage, rows 4 ft. by 3 ft. apart; can be set as late as July.

Marrow Kale or Marrow Cabbage—This is described in Washington State Agricultural Experiment Station Bulletin No. 95 as a valuable dairy and poultry food, in many ways very similar to Thousand Headed Kale, and even more prolific. The plants average 4 to 6 feet in height, with stalks 5 to 6 inches in diameter, and weigh 14 to 20 lbs. The stalks are edible and are relished by cows. The lower leaves are broken off and fed as they mature. Culture the same as for Kale and Cabbage. Oz., 15c; 1/4 lb., 50c.

Millet, German—Makes good hay; seed grown extensively for feeding birds. Requires a warm climate. Lb., 15c; 10 lbs., \$1.25.

Millet, Hungarian—Good for hay or green fodder; also valuable for soiling. Lb., 10c; 10 lbs., 70c.

Oats, American Banner—A very popular white, head oat. The kernels are short, plump and white; the straw is stiff and stands up well. Ask for prices.

Oats, Gray Winter—This Oat is planted extensively throughout the Northwest as a fall or winter Oat. Is well and favorably known, being a good yielder. It is extremely hardy and withstands our most severe winter. The straw is large and strong, not liable to lodge. It stools freely and is splendid as a support for vetch. Samples and prices on request. Lb., 10c; 3 lb., 25c.

Peas, Blue Scotch—A splendid variety, similar to Canadian, except in color, which is bluish green. The peas are small, round, very hard. It is a heavy yielder and ripens evenly. Lb., 15c; 10 lbs., \$1.25; 100 lbs., \$11.00.

Peas, Canadian Field—The most popular

FIELD SEEDS—Continued

variety; grown extensively in the Northwest. Splendid for hay, ensilage, green feed or to plow under for green manure. Lb., 10c; 10 lbs., 90c; 100 lbs., \$8.50.

Peas, Cow—Whip-Poor-Will—Upright or bush growth; earliest maturing; easily harvested. Per lb., 25c; 10 lbs., \$2.00.

Rape, Dwarf Essex—One of the best forage plants producing immense quantities of green feed, when grass and other crops are dried up; has yielded as high as ten tons of green feed per acre with a food value double that of green clover; makes excellent pasture for all stock and fine green food for chickens. Thrives on all soils and is ready for use in six or eight weeks from time of sowing. Also valuable for plowing under. Sow same as turnips, from May until September, or sow with grain, using 4 pounds per acre in drills;

broadcast use about 8 pounds per acre. Lb., 25c.

Rye—Cultivated for its straw or cutting green; also valuable to sow with Vetches. Market price.

Vetches, Spring Tares—(*Vicia Sativa*.) One of the most valuable crops for the Northwest; makes an excellent feed for dairy cows; for best results sow in fall with oats or rye, from 60 to 80 lbs. to the acre. Lb., 20c; 10 lbs., \$1.50; 100 lbs., \$15.00.

Wheat—We can supply the following varieties which are extensively grown in the Northwest. Choice re-cleaned seed. As prices are subject to fluctuations and often inferior wheat is being offered at tempting prices, you had better ask us for samples and quotations. You will never make a mistake in obtaining the best possible grade for seeding purposes: **Blue Stem**, the best and one of the most profitable; **Turkey Red**, **Red Fife**, **Little Club**, **Red Russian**.

FLOWER SEEDS

Flowers make a home more cheerful, and as most varieties (and especially the Annuals) are easily grown from seed, no place should be without an assortment. We import all our Flower Seeds (with the exception of a few varieties that are grown in this country) from the **BEST GROWERS** in Europe, and put the same up in neat lithographed packets.

Prices subject to market fluctuations

Considering the small cost of flower seeds, the large number of varieties, the gorgeous display when in bloom, more real joy, more genuine pleasure is to be had from floral surroundings, and decorated interiors with cut flowers, than any like investment in the world.

Directions for starting small vegetable and flower seeds, either out doors or in a box.—Select your soil as free as possible of weeds, using a good quality of potting soil. If out doors pulverize thoroughly to depth of six inches, working it fine and firm; if your soil is free of weeds sow broadcast, if not sow in drills to facilitate weeding, covering lightly with a mixture of good soil and sand, using a light spray of water to moisten the surface, keep moist but not wet until plants come up; you may use a canvass or burlap during the day to retain the moisture, remove the canvas or burlap during the night. When plants begin to come up remove the canvas or burlap permanently. Any dryness after seeds sprout is abbsolutely fatal. Sow one ounce to about 60 to 75 square feet of surface.

ACHILLEA—(The Pearl.) A hardy perennial, blooms the first year if sown early. Grows about 2 feet high and is covered with pure white double flowers. Fine for cutting. Pkt., 10c.

ACROCLINIUM—A pretty annual, with everlasting flowers, growing about one foot high. Flower heads should be gathered when young to preserve; a fine plant in a mixed border. Double pink. Pkt., 5c each.

ADLUMIA CIRRHOSEA—(Mountain Fringe.) A hardy biennial climber. The feathery foliage closely resembles

the Maiden-hair fern. The flowers are tube-shaped and completely cover the plant; flesh-colored; height 15 feet. ...Pkt., 10c.

AGERATUM—(Floss Flower.) One of the best bedding plants, being covered with bloom from early summer until frost. Dark blue, 8 inches. Pkt., 5c.

AGROSTEMMA—Free-flowering and easily grown. 2 feet high; fine for bedding. Silvery white foliage.

Coronaria—(Rose Champion.) Perennial; very pretty. Pkt., 5c.

ALYSSUM—(Mad-Wort.) *Maritimum*

FLOWER SEEDS—Continued

(Sweet Alyssum.) Annual of trailing habit; white. Pkt., 5c.

ALYSSUM—(Little Gem.) Compact dwarf habit, 6 inches high; blooms when quite small and plants covered with a solid mass of white from spring to late autumn. Pkt., 5c.

ALYSSUM SAXATILE COMPACTUM—Showy golden-yellow flowers; fine for rockwork; hardy perennial; blooms the first season. Pkt., 10c.

AMARANTHUS—Brilliant foliaged annuals, growing from 3 to 5 feet high. They thrive best in a hot, sunny location, not too rich soil, and should be given sufficient room to develop their full beauty.

Caudatus—(Love Lies Bleeding.) Blood red. Pkt., 5c.

Cruentus—(Prince's Feather.) Dark red, feathery flowers. Pkt., 5c.

Tricolor—(Joseph's Coat.) Leaves red, yellow and green. Pkt., 5c.

AMMOBIUM GRANDIFLORUM—Pretty everlasting; of easy culture; flowers white, 2 feet. Pkt., 5c.

ANAGALLIS—Showy annual. Plant in sunny situation; 2 feet high. Choice mixed. Pkt., 5c.

ANEMONE—(Wind Flower.) pleasing perennial producing a wonderful array of colors; fine for bouquets.

St. Brigid—Semi-double and double, mixed. Pkt., 10c.

ARABIS—(Rock Cress or Snow of the Mountains.) The earliest of the spring flowers. The spreading tufts are covered with a mass of flowers; unequalled

for rockeries and edgings; withstands drought; perennials. Alpine Nana Compacta. Pure white. Pkt., 5c.

ANTIRRHINUM—(Snap Dragon.) An old fashioned flower of giant varieties, fine for bedding, blooming continually until late fall; large flowering tall varieties.

Rose—Rich Rose. Pkt., 10c.

Giant Mixed—Pkt., 5c.

Large flowering half dwarf varieties:

Daphne—Soft Pink. Pkt., 10c.

Golden Yellow—Rich Yellow. Pkt., 10c.

Firebrand—Rich Deep Red. Pkt., 10c.

Half Dwarf—Mixed. Pkt., 5c.

Tom Thumb—Mixed. Pkt., 5c.

CALAFORNICA HYBRIDA—Mixed colors. Pkt., 5c.

Majus Album—Tall white. Pkt., 5c.

Majus Staitum—Finest striped varieties. Pkt., 5c.

Large Flowering—Mixed. Pkt., 5c.

AQUILEGIA—(Columbine.) Coerulea hybrida. Has very long spurs. Finest mixed. Pkt., 5c.

ARCTOTIS GRANDIS—(African Daisy.) A remarkably handsome hardy annual from Africa; easy to grow and always in bloom in bright sunshine, closing in shadow. Pkt., 5c.

ARISTOLOCHIA—(Dutchman's Pipe Vine.) Perennial climber, bearing large dark purple flowers. Pkt., 5c.

ARMERIA FORMOSA—(Sea Pink.) Hardy perennial, bearing rosy-pink flowers; fine for edging. Pkt., 10c.

COMMERCIAL FERTILIZERS PROFITABLE

A 100-lb. Bag of High Grade Commercial Fertilizer will contain more soluble than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than 2 tons of manure, and no weed seeds to worry over.

All CROP FARMOGERM (Fertilized Bacteria) increases the yield of any crop and enriches the soil; supplies the growing plant and increases the nitrogen in the soil, improving the quality of the crop. Aids decomposition of soil particles; hastens decaying organic matter, making plant food more available. Price per acre, pkg., \$2.00; 5-acre pkg., \$7.50.

ASTERS

Asters are one of the most important of summer and autumn flowers. Seeds sown in the open ground in April and May bloom finely in September and October. For July and August flowers, sow in hotbeds in March and April and transplant to open ground when 2 to 3 inches high. Annuals, 6 inches to 2 feet high.

We obtain all our Aster Seeds from a Western grower, known all over the United States for his splendid stock.

QUEEN OF THE MARKET—The best early Aster, of spreading habit, about two weeks earlier than other sorts. White, pink, lavender, mixed. Pkt., 10c.

LAVENDER GEM—This beautiful new Aster of the comet type is an exquisite shade of true lavender, beyond question the finest yet produced. Is free flowering, erect habit, medium early. Every florist should grow this Aster. Pkt., 15c; $\frac{1}{8}$ oz., 50c.

IMPROVED GIANT CREGO—The "Giant Crego" is distinct in every way, and its magnificent flowers, often 6 inches in diameter, are fully equal to chrysanthemums. They have rare beauty of form and brilliant coloring, are very vigorous, and free flowering; blooms are borne on long stems. White, Shell,

Pink, Rose, Purple, Lavender. Pkt., 15c.

ASTER-MUM—A selection from "Giant Comet." Of immense size, resembling Chrysanthemum in form, hence the name "Aster-mum." Plants are about 2 feet high with good stems. A little earlier than "Crego." Mixed colors. Pkt., 10c.

HOHENZOLLERN—Excellent class, with enormous flowers, superb for cutting and exhibiting. Separate colors: white, rose, dark blue and mixed. Pkt., 10c.

GIANT CRIMSON—A new late Aster of a dark velvety crimson color. The plants are of a branching habit, but very upright in growth. Very attractive under artificial light. Pkt., 15c.

PERENNIAL—Free flowering habit and of compact growth; fine for rockeries and mixed borders; mixed. Pkt., 15c.

50c buys any six 10-cent packets or any four 15-cent packets of the above
Finest American Asters.

BALLOON VINE—*Cardiospermum (Love in a Puff.)* A rapid growing annual climber; seed vessels look like miniature balloons; flowers white. Pkt., 5c.

BALSAM—(Lady Slipper.) Tender annual, 2 feet high, producing brilliant-colored double flowers in the greatest profusion. Mixed. Pkt., 5c.

Bellis—(Double Daisy.) The poet's favorite; hardy perennial, blooms the first year from seed from early spring till late in summer.

Longfellow—Double pink; very showy. Pkt., 10c.

Double Mixed. Pkt., 10c.

The New Double Giant Daises—Remarkably fine, true from seed.

Monstrosa, Pink—*Monstrosa, White.* Pkt., 25c.

BRACHYCOME—(Swan River Daisy.) Free flowering dwarf growing annuals, suitable for edging or pot culture. Choice. Mixed. Pkt., 5c.

BARTONIA—Producing golden-yellow flowers, very fragrant in the evening. Height 2 feet. Does not bear transplanting. Pkt., 5c.

CALENDULA—(Meteor.) Yellow striped orange. Pkt., 5c.

Prince of Orange—Like Meteor but darker. Pkt., 5c.

Mixed Double, sorts, pkt., 5c.

Calendula—(Pot Marigold.) Showy, free-flowering hardy annuals, about 1 foot high. Flowers produced in great profusion, showing different shades of yellow. Mixed. Pkt., 5c.

CALLIOPSIS—(Crown of Gold.) Large golden yellow; fine for cutting. Pkt., 5c.

Golden Ray—Yellow and brown; narrow petals. Pkt., 5c.

Fine Mixed. Pkt., 5c.

CAMPANULA—(Canterbury Bells.) A beautiful and well known bell-shaped flower, perfectly hardy.

Medium—Hardy biennial, blooms the first year if sown early. Single finest mixed. Pkt., 5c.

Medium Calyeanthema—(Cup and Saucer.) Cup and saucer shaped flowers; fine for pots or borders. In Rose, White, Blue or Mixed. Pkt., 5c.

Speculum—(Venus Looking Glass.) Hardy annuals, with single blue flowers. Pkt., 5c.

CALLIOPSIS—Showy, free-flowering annuals. Excellent for cutting; showy.

COREOPSIS—Hardy perennial of the Calliopsis family. Pkt., 5c.

COREOPSIS, LACEOLATA GRANDIFLORA—An extra fine strain of the golden yellow variety. Pkt., 10c.

Medium—Hardy, White, Blue, Rose and mixed. Pkt., 5c.

CANDYTUFT—(*Iberis*) One of the best flowers for edging or rockeries. Some varieties are fragrant and all are profuse in bloom.

Candytuft Carmine—Bright carmine Rose. Pkt., 5c.

Lavender—Delicate shades of Rosy Lavender. Pkt., 5c.

Empress or Hyacinth Flowered—Hardy annual; finest white variety. Pkt., 10c.

Little Prince—Good spikes of pure white compact habit. Pkt., 5c.

Fine Mixed. Pkt., 5c.

Coronaria—(*Rocket Candytuft*.) Hardy annual; flowers in upright spikes; pure white. Pkt., 5c.

Umbellata Purpurea—Dark crimson, the darkest and best strain. Pkt., 5c.

Gibraltarica—Perennial variety, with large lilac flowers shading off to white; a splendid sort. Pkt., 10c.

CANARY BIRD FLOWER—(*Tropaeolum Canariense*.) A beautiful annual climber of rapid growth, with charming canary colored blossoms with its wings resembling a bird half expanded. Pkt., 5c.

CANNA—(*India Shot*.) Ornamental perennials; blooms first year if sown early; useful in groups and masses; height about 4 feet.

Crozy's Hybrids—The best strain of all Cannas. Fine mixed. Pkt., 10c.

CARNATION—The richness of colors and delicious fragrance makes the Carnation a general favorite with all lovers of flowers. Indispensable for greenhouse culture in winter and the garden in summer.

Early Flowering Vienna—A dwarf variety; fine for borders. Finest mixed. Pkt., 10c.

Grenadin—Dwarf and compact; flowers scarlet and double. Pkt., 10c.

Perpetual or Tree—Large, elegantly formed flowers. Choice mixed. Pkt., 25c.

Chauband's Everblooming—Blooms in five months after being sown and continues to flower in the greatest profusion indefinitely. Finest mixed. Pkt., 25c.

CARNATION'S MARGUERITE—The most popular variety with the amateur as they bloom four months from seedling, producing an abundance of double long stems and highly scented flowers. Separate colors; White Yellow, Red or fine mixed. Pkt., 5c.

CELOSIA—(*Cockscomb*.) Free blooming annual; makes a grand border plant, and attractive for pots.

Cristata—Dwarf mixed. Pkt., 5c.

Pulmosa—Feathered Cockscomb; mixed. Pkt., 10c.

CENTAUREA—Under this name is included such popular annuals as the Cornflowers, Blue Bottle, or Ragged Sailor, Sweet Sultans, etc., Great favorites in all sections of the country; fine as cut flowers.

Cyanus—Known as Bachelor's Button, Blue Bottle and Ragged Sailor.

They usually re-seed themselves year after year. Semi-double; separate colors: Rich Dark Blue, and Soft Rosy Pink; also fine mixed. Pkt., 5c.

Cyanus—Double blue almost identical in color to the above variety, which is so much in demand for cutting. Pkt., 10c.

Muschata—Separate colors: White, Purple, Striped and mixed. Pkt., 5c.

Suaveolens—(*Yellow Sweet Sultan*.) Fine. Pkt., 5c.

Candidissima—(*Dusty Miller*.) Silvery white leaves; fine for borders and hanging baskets. Pkt., 15c.

CHRYSANTHEMUMS—Showy and effective garden favorites. Annual varieties, Bloom from early summer until frost.

Carinatum—A fine double variety of the annuals. Choice, mixed. Pkt., 5c.

Segetum Evening Star—Large golden yellow flowers. Pkt., 5c.

Frutescens—(*Single Annuals*.) Daisy-like flowers of many colors; extensively grown for cut flowers. Mixed. Pkt., 5c.

Lecanthemum—(*California Fantasies*.) A most beautiful collection of perennial varieties; all sorts; splendid mixed. Pkt., 15c.

COBaea—A rapid growing annual climber with pretty bell-shaped flowers in great profusion during the fall months; height 20 to 30 feet. Purple flowers. Pkt., 10c.

CYPRESS VINE—(*Ipomoea Quamoclit*.) A popular annual climber with delicate fern-like foliage and small star-shaped flowers; 10 feet high. Scarlet, White

You must keep the insects off your flowers and fruit if you want to be successful.

Use BLACK LEAF 40 for insects on your Flowers.

CLARKIA—A pretty and easily grown annual; blooms from July to October; 1 to 2 feet high. The flowers are borne all along the stems and resemble the carnation to some extent. Double Salmon pink. Pkt., 10c.
Double Mixed. Pkt., 10c.

COSMOS—Extra early. A strong growing annual, covered with beautiful flowers, in white, pink and crimson shades; from July until frost. Fine feathery green foliage; height 3 to 4 feet. White Rose, Crimson. Pkt., 10c.
Mixed, Pkt., 5c.

DATURA—(Trumpet Flower.) Ornamental annual, with large and showy flowers; handsome plants, 2 to 3 feet high. Mixed. Pkt., 5c.

DIANTHUS OR PINKS—No garden is complete without a few plants of these annual pinks, which are easily grown from seed.

Chinensis—(Chinese or Indian Pink.)—Double and showy flowers, with a wide range of colors; choice mixed. Pkt., 5c.

Dianthus or Pinks, Hedewigi—(Japanese Pink.) Double Mixed. Pkt., 10c.
Hedewigi Atropurpureus—(Morning Pink.) Very large double flowers, or dark crimson. Pkt., 10c.

Hedewigi—(Eastern Queen.) Rose colored flowers, 2 to 4 inches across; finely striped and stained. Pkt., 10c.

Imperialis—(Double Imperial Pink.)—Robust bushy plants with double flowers. White, Red or mixed. Pkt., 5c.

Plumarius—(Double hardy garden garden Pink.) Adapted for beds and borders; delightful spicy odor; perennial. Mixed. Pkt., 15c.

DIMCORPHOTECA—(African Golden Daisy.) A showy annual of bushy habit, growing from 12 to 15 inches high; a free bloomer. Pkt., 10c.
Finest Mixed. Pkt., 25c.

DIGITALIS—(Foxglove.) Hardy perennial, highly ornamental with flower stalks 2 to 3 feet long covered with thimble-shaped blossoms. Mixed. Pkt., 5c.

DOLICHOS—(Hyacinth Bean.) A rapid growing annual climber, flowering freely in erect racemes, followed by ornamental seed pods. Mixed. Pkt., 5c.

ECHINOCYSTIS LOBATA—(Wild Cucumber Vine.) Annual climber of quick growth; fine for covering old fences, trees, etc. Pkt., 5c.

GODETIA—Attractive free blooming annuals. The plants bloom profusely and bear showy flowers of satiny texture of the most delicate and lovely colors.

ESCHSCHOLTZIA—(California Poppy.) Very attractive annuals for beds or masses; fine cut, glaucous foliage. Very fine flowering. One foot high.

Californica—(State flower of California.) Flowers bright yellow. Pkt., 5c.

Californica—(Crimson King.) Rich Crimson flowers; very attractive. Pkt., 10c.

Californica Golden West—Orange-colored blossoms, shading to canary yellow at the edges; very large. Pkt., 10c.

California Mandarin—Petals rich orange inside, brilliant scarlet out-side. Pkt., 5c.

GAILLARDIA—Showy and free bloomers, fine for bouquets or for house decoration.

Grandiflora—Hardy perennial; flowers the first season. Pkt., 5c.

Lorenziana—Annual; double; finest mixed. Pkt., 10c.

Picta Drummondii—Annual red and yellow; single. Pkt., 5c.

GERANIUM—A superb strain of the finest varieties; very interesting to grow from seed. Choice mixed. Pkt., 25c.

CEUMS—(Avens.) A hardy perennial bearing large showy double dark crimson flowers on long stems; fine for bouquets. Pkt., 10c.

Duchess of Albany—Satiny white, of compact growth. Pkt., 5c.

Lady Albermarle—Dark crimson. Pkt., 5c.

Lady Satin Rose—Bright carmine; very attractive. Pkt., 5c.

The Bride—White and crimson; very showy. Pkt., 5c.

Whitney Fulgida—Crimson scarlet; a superb variety. Pkt., 5c.

GOMPHRENA—(Globe Amaranth.) One of the most popular of the everlastings, known as Bachelor Buttons; a fine bedding plant; choice mixed. Pkt., 5c.

GOURLDS—Annuals of very rapid growth with curious fruits and ornamental foliage, excellent for covering verandas, fences, etc. Small ornamental sorts mixed. Pkts., 5c.

GYPSOPHILA—(Baby Breath.) Pretty free blooming plants, succeeding in any garden soil. Their misty white panicles of bloom are used for mixing with other cut flowers.

Elegans—Pure white hardy annual, 2 feet. Pkt., 5c.

Paniculata—Hardy perennial, white flowers; a favorite for bouquets. Pkt., 5c.

HELIANTHUS—(Sunflower.) Annuals, 2 to 6 feet high, fine for back grounds or along fences.

Californicus fl. pl.—Extra large double. Pkt., 5c.

Globosus fl. pl.—Huge flowers, very double; a fine strain. Pkt., 5c.

Nanus fl. pl.—Dwarf double; an excellent sort. Pkt., 5c.

HELICHRYSUM—(Straw Flower.) One of the best everlasting, large flowers and bright colors, prized for winter bouquets; hardy annuals, 2 feet; mixed. Pkt., 5c.

HELIOTROPE—(Cherry Pie.) A half-hardy perennial highly valued for their scented flowers. Pkt., Mixed 15c.

HOLLYHOCK—(Althaea Rosea.) One of the most majestic of hardy plants. Although a perennial we advise sowing the seed every year, as the young plants give the best flowers.

Chater's Superb—The finest strain of all the Hollyhocks; separate colors, white, golden yellow, salmon-rose, crimson, scarlet, apple blossom, purplish violet or mixed. Pkt., 10c.

Allegheny—Mammoth flowers with loosely arranged petals; choice mixed. Pkt., 10c.

HUMULUS—(Japanese Hop.) Climbing hop, 15 to 20 feet.

Japonicus—Very ornamental, foliage dense and a lively green color. Pkt., 5c.

Variegatus—The leaves are marbled and splashed with silvery white, light and dark green. Pkt., 5c.

IMPATIENS—(Zanzibar Balsam.) Highly prized annuals, with waxy foliage and semi-transparent branches, which makes it very attractive; 1½ to 2 feet; fine for window culture.

Holstii—Brilliant scarlet flowers, very handsome. Pkt., 25c.

KOCHIA TRICHOHYLLA—(Summer Cypress.) Annual; forms highly decorative bushes; foliage green, turning to fiery red in autumn. Pkt., 5c.

LARKSPUR—Hardy annuals of easy culture, with a wide range of colors; very showy; makes fine cut flowers.

Dwarf German Rocket—Fine for bedding; 1 foot; choice mixed. Pkt., 5c.

Tall German Rocket—Has long showy spikes; excellent for cutting. Pkt., 5c.

Perennial Varieties—(Delphinium.) These are usually taller than the annuals and require more space between the plants; will bloom the first season if sown early; flower spikes long and dazzling; foliage clean and pretty.

Elatum Hybridum—Very showy class finest mixed. Pkt., 5c.

LAVATERA—(Annual Mallow.) A beautiful and showy annual, 2 feet high, with cup-shaped pink flowers. Pkt., 5c.

LEPTOSIPHON E—Pretty annuals; makes a dense tuft of fine foliage, covered with splendid little flowers. Lilac, rose or mixed. Pkt., 5c.

LINARIA CYMBALARIA—(Kenilworth Ivy.) Hardy perennial, a charming trailing plant, suitable for rock work, vases, etc. Pkt., 10c.

LINUM—(Flowering Flax.) Free flowering of easy culture.

Grandiflorum Rubrum—(Scarlet Flax.) Showy bedding plants, hardy annual; 1 foot. Pkt., 5c.

Perenne—Perennial Flax, very showy; blue; 18 inches. Pkt., 5c.

LOBELIA—Very pretty annuals of trailing habit; fine for baskets and bedding; of compact growth, and literally covered with small bright flowers.

Gracilis—Light blue foliage, green trailing. Pkt., 5c.

LOBELIA—(Emperor William.) Very compact, sky blue. Pkt. 10c.

White Gem—Forms a perfect ball of snow white flowers. Pkt., 10c.

Cardinalis—(Cardinal Flower.) Spikes of brilliant scarlet flowers; fine hardy border plant; blooms the first year; 3 feet high. Pkt., 15c.

LUPINS—Hardy garden plants, growing from 1 to 3 feet high, bearing spikes of pea-shaped flowers.

Annuals—Tall mixed. Pkt., 5c.

Polyphyllus—Perennial sorts mixed. Pkt., 5c.

LYCHINS—Hardy perennial plants; blooms the first year if sown early.

Chalcedonia—(Jerusalem Cross.) Scarlet; very fine. Pkt., 5c.

MARIGOLD—(Tagetes.) An old standard variety of hardy annuals.

Tall African—Fine double mixed; 18 inches tall. Pkt., 5c.

Orange Prince—Double flowers of deep golden orange. Pkt., 10c.

Tall French—Double gold striped, or mixed. Pkt., 5c.

Legion of Honor—Dwarf; golden yellow with large spot of crimson velvet. Pkt., 5c.

Signata Pumila—A dwarf compact bushy Marigold with delicate fern like leaves; densely covered with flowers of golden yellow. A good border plant. Pkt., 5c.

Tall French—Double gold striped; 2 feet. Pkt., 5c.

Dwarf French—Mixed Double; 1 foot. Pkt., 5c.

MARVEL OF PERU—(Four o'Clock.) A garden favorite, handsome and free flowering; 2 feet; annual, mixed. Pkt., 5c.

MAURANDA—A half-hardy, rapid growing slender climber; flowering the first season, if sown early. Pkt., 10c.

MIMOSA—(Sensitive Plant.) Tender annual; leaves close when touched. Pkt., 5c.

MIMULUS—Perennials, blooming the first year from seed; 1 foot.

Moschatus—(Musk Plant.) Small yellow flowers; fine for baskets. Pkt., 5c.

Tigrinus—(Monkey Flower.) Fine mixed spotted varieties. Pkt., 5c.

MIGNONETTE—(Reseda.) No garden is complete without this well-known fragrant plant. The seed can be sown at any time; a very hardy annual; average height 1 foot.

Odorata—Large spikes; very sweet scented. Pkt., 5c.

Machet—Dwarf, sweet scented red flowers. Pkt., 10c.

Paris Market—Excellent for pots; red flowered. Pkt., 5c.

Parson's White—Large spikes; very fragrant; white. Pkt., 5c.

Victoria—Very compact; red. Pkt., 10c.

MESEMBRYANTHEMUM—Beautiful dwarf edging plants, blooming the whole summer. Pkt., 5c.

Crystallinum—(Ice Plant.) Flowers white, icy foliage. Pkt., 5c.

MORNING GLORY—(Ipomoea.) Climbers of rapid growth, with beautiful and varied flowers.

Convolvulus Major—A tall variety of Morning Glory, making rapid growth, mixed. Pkt., 5c.

Convolvulus Minor—The dwarf Morning Glory; makes fine border or bedding plants; rich colors; mixed. Pkt., 5c.

Imperial Japanese—(Ipomoea Imperials.) The largest and most handsome of all Morning Glories; fine mixed. Pkt., 10c.

MYOSOTIS—(Forget-Me-Not.) Beautiful little plants with star-like flowers. Excellent for borders.

Azorica—Very handsome annuals; fine mixed. Pkt., 10c.

Alpestris Victoria—Dwarf Globular, sky-blue perennial; a charming trailing plant, suitable for rock work, vases, etc. Pkt., 10c.

Alpestris—A pretty trailer, with blue flowers. Pkt., 5c.

Palustris—The true Forget-Me-Not, lovely blue flowers, perennials. Pkt., 10c.

MOON FLOWER—(Ipomoea Grandiflora.) The white Moon Flower; the plants are covered with fragrant flowers, 5 to 6 inches in diameter at night and dull days. Pkt., 10c.

NASTURTIUM—One of the best annuals of easy culture, wide range of colors. The dwarf varieties are exceedingly fine for bedding and the tall sorts make excellent coverings for trellises, etc.

Dwarf Orange—Scarlet, deep red. Pkt., 5c; oz., 20c.

Tall Mixed. Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 50c.

Tall Ivy Leaved. Pkt., 10c; oz., 25c.

NEMESIA—Dwarf large flowering hybrids; a pretty orchid-like flowering annual, of various colors; fine for pot culture and edging. Pkt., 25c.

NICOTIANA—Species of tobacco, delicious fragrant flowers; fine as decorative plants; annuals; about 3 feet high. **Affinis**—Pure white tubular flowers, sweet scented. Pkt., 5c.

Sylvestris—Fine deep green foliage, pure white fragrant, drooping flowers; very ornamental. Pkt., 5c.

NEMESIA—(Strumosa Suttoni.) Hardy annual, 1 $\frac{1}{2}$ feet high; very pretty and neat flowering; fine for edging. Pkt., 25c.

NIGELLA—Curious and ornamental fennel leaved, hardy, annual; easily grown; 1 foot.

Damascena—(Devil in a Bush.) Finest mixed. Pkt., 5c.

Damascena—(Miss Jekyll.) Finest double blue flowers with fern-like foliage. Pkt., 10c.

PETUNIA—An effective out door and house culture flower; early and continuous throughout the season. This season we are offering some of California's specials.

Giants of California—Often 5 or more inches in diameter. They embrace every conceivable shade of crimson, pink, lavender, yellow, black, and pure white, etc.; flowers are beautifully ruffled and frilled. Mixed pkts., 25c.

Fluffy Ruffles (Single)—The most delicate ruffled and fringed of all petunias; slightly smaller than the giants but more ruffled. Mixed pkts., 25c.

Marvelous Double—Beautifully fluted frilled, ruffled and pinked. They have never been surpassed in beauty size and color. Choice mixed pkt., 25c.

PHLOX—Dwarf varieties, 8 inches high.

Snowball—Snow white. Pkt., 10c.

Fire Ball—Fiery-scarlet. Pkt., 15c.

Fine Mixed. Pkt., 10c.

Decussata—(Perennial Phlox.) Very hardy; 3 feet high; mixed. Pkt., 10c.

PHLOX—The blooms of Phlox Drummondii are unrivaled for richness and beauty of color, ranging from white to the deepest scarlet and purple. They are abundant, almost covering the foliage and of long duration. Very desirable and easily grown. For cutting bouquets or for bedding in masses they are unsurpassed. Hardy; annual; 1 foot high.

Coccinea—Brilliant scarlet. Pkt., 10c.

Grandiflora Alba—Large pure white. Pkt., 10c.
Grandiflora Brilliant—Large brilliant rose. Pkt., 10c.
Choice Mixed. Pkt., 5c.

PORTULACA—(Moss Rose.) Hardy annual; one of the best plants for edging and rock work; will thrive most any place.

Single Varieties—Choice mixed. Pkt., 5c.

Double Sorts—Finest large varieties, mixed. Pkt., 15c.

PANSY

Masterpiece—(Frilled Pansy.) Curled wavy petals, fine rich colors. Pkt., 15c.

Pansy—Greenhouse Special; one of the finest strains of the mastodon. Choice mixed. Pkt., 25c.

Orchid Flowered—This is the finest strain known, the flowers being of finest form and Orchid colors. Pkt., 15c.

Giant Varieties—Mixed. Something that will please the most fastidious. Pkt., 15c.

Fine Mixed. Pkt., 5c.

Kaufmann's Superb Mixture—A strain of the finest and largest imported stock. None better in varieties and size. Pkt., 25c.

Bronze—A beautiful strain of rich bronze; strong and robust growth. Pkt. 15c.

Prince Henry—Large flowering, dark; very fine. Pkt., 15c.

Emperor William—Very showy, ultramarine blue. Pkt., 10c.

Faust—(King of the Blacks.) Almost coal black. Pkt., 10c.

Lord Beaconsfield—Large purple-violet top petals white. Pkt., 10c.

Mad. Perret—Wine shades, very large and showy flowers. Pkt., 10c.

Giant White—Dark eye. Pkt., 10c.

Yellow—Black eye. Splendid. Pkt., 10c.

Yellow Persian—Pure Yellow. Without eye. Pkt., 10c.

POPPIES

Poppies are one of the most desirable flowering plants, with a wide range of colors. Will not stand transplanting. Sow where they are to remain.

Carnation Flowered—Large double pink flower of brilliant colors; mixed. Pkt., 5c.

Admiral—Single paeony flowered, white, broad scarlet band, very effective. Pkt., 5c.

Dainty Lady—Rose mauve; very showy. Pkt., 5c.

Mikado—White margined purple. Pkt., 5c.

Glaucum—(Tulip Poppy.) Large tulip-shaped flowers of brilliant scarlet. Pkt., 5c.

Shirley—Extra fine strain, semi-double; scarcely two flowers alike. Mixed Pkt., 5c.

Paeony Flowered—Large showy flowers, resembling a double paeony; mixed colors. Pkt., 5c.

PERENNIAL POPPIES

Nudicaule—(Iceland Poppies.) Dwarf, bright yellow; very attractive; bright green. Pkt., 10c.

COMMERCIAL FERTILIZERS PROFITABLE

A 100-lb. Bag of High Grade Commercial Fertilizer will contain more soluble than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than 2 tons of manure, and no weed seeds to worry over.

FLOWER SEEDS

PRIMULA—(Primrose.) The beautiful and charming Chinese fringed Primroses in the home or conservatory.

Auricula—A favorite of great beauty, 9 inches high; choice mixed. Pkt., 15c.

Chinensis Frimbriata—Fringed variety, choice colors, single or double mixed. Pkt., 25c.

Japonica—(Japanese Primrose.) Very fine, mixed. Pkt., 10c.

Elatior—(Polyanthus.) Showy, free flowering plant, suitable for either pot or outdoor culture; mixed. Pkt., 10c.

Obconia—A profuse bloomer, bearing on long stems, heads containing 10 to 15 flowers; mixed. Pkt., 25c.

Polyanthus—(English Primrose.) Fine for outdoor culture; yellow. Pkt., 10c.

PUERARIA THUNBERGIANA—(Kudzu Vine.) Beautiful Japan climber, hardy, perennial, with fragrant purplish-violet Wisteria-like flowers. Pkt., 5c.

PYRETHRUM—Perennials of easy culture, handsome herbaceous plants.

Aureum—(Golden Feather.) Foliage bright yellow, very pretty border plant; height 6 inches. Pkt., 5c.

Hybridum—Hardy perennial daisy-like flower; mixed. Pkt., 5c.

ORIENTAL HYBRIDUM—Finest mixed hybrid. Pkt., 10c.

RICINUS—(Castor Oil Bean.) Ornamental foliage plants with bright colored fruits; 5 feet; mixed. Pkt., 5c.

Cambodgensis—Black leaves and stem; assumes different shades as the plant increases in size. Pkt., 5c.

RUDBECKIA—(Cone Flower.) Bi-color. A superb free flowering annual; 2 feet high; long stems; golden yellow with brown spots at the base; fine for cutting. Pkt., 10c.

SALPIGLOSSIS—(Painted Tongue.) A favorite annual of easy culture, beautiful orchid-like flowers; mixed. Pkt., 5c.

SCARLET RUNNER—Bean. Vines and flowers ornamental, brilliant scarlet pea-like blossoms; a good shell bean. Pkt., 10c; lb., 50c.

SALVIA—(Flowering Sage.) Perennials, blooming the first year from seed, bearing long spikes of flowers in great profusion.

Splendens' Brilliant Scarlet — Very showy. Pkt., 10c.

SCABIOSA—(Morning Bride.) Handsome border plants; succeeds in any good garden soil; double flowers, very showy. Pkt., 5c.

SCHIZANTHUS—(Butterfly or Fringed Flower.) Elegant and free-blooming, of easy culture; 2 feet; mixed. Pkt., 5c.

STOCK GILLIFLOWER—One of the most popular annuals. It is unsurpassed for brilliancy and diversity of color, fragrance, profusion and duration of bloom.

German Ten Weeks—Splendid perpetual blooming class, separate colors; white, blood-red. Pkt., 10c.

Choice Mixed. Pkt., 10c.

Winter or Biennial Brompton—Half hardy biennials, bushy plants, with beautiful double flowers, violet or mixed. Pkt., 10c.

Call and see our Canary Birds. The companionship of a bird has brightened the life of many a tired, over-worked mother on whom the daily cares and burdens rested heavily. The music of a good singer makes the whole house more cheerful and every member of the family enjoys the pure, clear notes of the happy little song bird.

The superior quality of our selected canaries will please the most critical.

Commercial Fertilizers Profitable—A 100 pound bag of high grade fertilizer will contain more soluble and available plant food than 4000 pounds of stable manure of average quality. How much cleaner and easier to handle a 100-pound bag than two tons of manure, and no weed seeds to contend with.

In ordering Bird Cages by mail it would be well to make a second and third choice, in case we did not have your first choice. Express or freight.

SWEET PEAS

Culture of sweet peas—Plant as early in the spring as conditions will permit. Seeds should be sown at the rate of one ounce to fifteen feet. Make a trench about three or four inches deep, planting the seeds in the bottom about two inches deep, pressing the soil down firmly. After the plants are well up thin to four or five inches apart, draw the soil around them until the trench is filled above the level. This gives a depth to the roots, preserving the moisture. Keep the ground well worked and water if needed, an occasional soaking being better than a daily sprinkling. Keep the flowers cut close and a pruning of the tips of the vines will also aid in prolonging the season of bloom and insuring better flowers.



Sweet Peas—(Everlasting or Hardy.) Free flowering perennial climbers; continually in bloom; fine for cutting. Carmine or mixed. Pkt., 10c.

Selected Spencer Sweet Peas—The magnificent new Spencer Sweet Peas are rapidly displacing the older kinds. The plants make a vigorous growth, and the flowers are extraordinarily large, being when full grown, two to two and one-half inches in diameter. In addition, the petals are beautifully waved or fluted, and in some of the newer Spencers this fluting is very pronounced.

Fiery Cross—Beautifully waved and fluted flowers are borne freely in threes and fours, well placed on long stems, color a scorching fire red or scarlet, without any shading, and which scintillates and glitters, in bright sunlight, thus adding a glowing fire like sheen, which radiates over the flower.

Rosabelle—Undoubtedly the largest and most beautiful of the deep rose selves. The attractive rose—crimson color is heightened by a distinct white blotch at the base of the standard and wings. The flowers are very much waved or crimped, and always of extra large size.

Masterpiece—Spencer Giant flowered type. Large, wavy, lavender tinted mauve.

Sterling Stent—Color, a deep salmon suffused with orange, the flowers are of superb Spencer form, particularly by artificial light.

R. E. Felton—One of the best of the lavender varieties, grand for exhibition and garden decoration; strong grower; gives plenty of flowers. The individual flowers are very large and refined; the color is a clear rich lavender.

Geo. Herbert—A most magnificent Spencer; bright, rosy, carmine, flowers of the largest size.

Cupid Sweet Peas—In all straight colors, etc.

California Giants—As their name implies, are of very large size and beauty.

America—Spencer—The largest and finest of its class. Pure satiny white, striped and slashed crimson; 4 flowers of perfect form borne on long stems. Pkt., 10c; oz., 30c.

Asta Ohn—Spencer. Pinkish lavender; wings showing more clear lavender than the standard. Good size and best Spencer form. Pkt., 10c; oz., 30c.

Apple Blossom Spencer—The ground tint is primrose, standard rose showing veins of deeper rose, wings light carmine, the whole color overspread on primrose. Pkt., 10c; oz., 30c.

Afterglow Spencer—This is one of the most distinct varieties in cultivation. The general color effect might be described as electric shades of blue and rosy mauve, the standard being reddish mauve, becoming deeper in tone toward the base, while the wings are of a rich electric blue color. Pkt., (20 to 30 seeds), 10c.

Barbara—A superb salmon colored self. Flowers require to be slightly shaded. Pkt., 15c; oz., 40c.

Blanche Ferry Spencer—Standard wide and erect, bright rose pink, wings are creamy white, tinted with rose. Pkt., 10c; oz., 30c.

Countess Spencer—Bright, clear, pink showing a little deeper at the edges; long stems. Pkt., 10c; oz., 25c.

SWEET PEAS—Continued

Captain of the Blues, or Waverly Spencer—Pure purple; the margin of the petals is marbled. Pkt., 10c; oz., 25c.

Decorator—A rich rose overlaid with terra cotta, shading to a deep bright orange at base of wings. Of vigorous growth, the vines flower profusely, bearing on long stems three and four beautifully waved flowers. Pkt., 15c; oz., 40c.

Dobbie's Cream—We consider this the best deep cream or primrose colored variety; nicely waved, abundance of four bloom sprays, and most floriferous. Pkt., 10c; oz., 30c.

Elfrieda Pearson—The flowers are of extra large size. They are nicely disposed on extremely long stems, invariably borne in fours; color is a lovely pink. Pkt., 10c; oz., 35c.

Florence Nightingale Spencer—Large, wavy flowers. Lavender with a bluish cast, of fine shape and good substance. Pkt., 10c; oz., 30c.

Hercules—A magnificent pink self, of truly giant proportion, undoubtedly the best of its class. A flower of great substance; the broad spreading and beautifully waved standard frequently measures two and one-half inches in diameter. Pkt., 10c; oz., 35c.

Helen Lewis Spencer—Crimson orange wings, orange rose open form with wavy edges. Pkt., 10c; oz., 30c.

Margaret Atlee—The most perfect of the duplex type yet produced. Color is a warm salmon pink suffused over a cream ground. Flowers are of very large size and are borne almost uniformly four on a stem. Pkt., 10c; oz., 30c.

Mrs. Routzahn Spencer—Color, a soft straw tinted with blush pink, shading to apricot and rose at the edges, with a distinct rose margin; of immense size; one of the finest Spencers. Pkt., 10c; oz., 30c.

White Spencer—The finest white Sweet Pea, beautiful and graceful, with large fluted and wavy petals, long, stout stems, bearing uniformly four well-poised blossoms of delightful fragrance. Pkt., 10c; oz., 30c.

Yarraway—A bright rose pink with clear creamy base; the flowers are exquisitely waved and many are duplex; usually produced in fours on long stems. Pkt., 15c; oz., 50c.

Illuminator—A brilliant orange-salmon ground, illuminated with bright cerise pink; a rare and wonderful color combination of great beauty. Pkt., 10c; oz., 35c.

King Edward Spencer—Brilliant red, the best of the red or crimson sorts; a true Spencer type. Pkt., 10c; oz., 25c.

King Manual—This is a giant flowered maroon or deep chocolate colored variety that is sure to give pleasure to all who admire these rich shades. Pkt., 10c; oz., 35c.

King White—The newest and most magnificent white; of Spencer type; the immense petals, gracefully frilled, are a pure white of wonderful substance. King White has the most enthusiastic endorsement ever accorded a sweet pea. Pkt., 10c; oz., 35c.

Maude Holmes Spencer—A brilliant sun-proof crimson of the largest size. Of true Spencer form, wavy and fluted. Pkt., 10c; ½ oz., 20c; 1 oz., 30c.

Mrs. Townsend Spencer—White with a picotee edge of blue; large and handsome. Pkt., 10c; oz., 30c.

Marie Corelli Spencer—Bright, glowing crimson, the standards are cherry red; extra bold flower; most beautiful. Pkt., 10c; oz., 35c.

Mrs. Walter Wright Spencer—Rose purple, self-colored, wavy petals. Pkt., 10c; oz., 25c.

Mrs. Hugh Dickson—One of the most charming varieties yet obtained. The color is a rich pinkish apricot on cream ground, shading lighter toward the center of the flower. The gigantic flowers are uniformly of the best Spencer. Pkt., 10c; oz., 30c.

Mrs. Cuthbertson—An exquisitely beautiful bi-color of giant size. The standard is a clear rose pink in color, wings white, slightly flushed rose. Flowers invariably produced four on a stem of great length. Pkt., 10c; oz., 25c.

Martha Washington—The ground color is pure white, the edges of the standard and wings being heavily picoted with deep rose; as the flower ages the backs of the standard and wings become flushed with rose. Pkt., 10c; oz., 30c.

Mrs. C. W. Breadmore—A lovely "picotee" of true Spencer type. The large flowers are borne profusely three to four to a stem; they are distinctly pink edged upon a cream ground. Pkt., 10c; oz., 30c.

SWEET PEAS—Continued

Margaret Madison—The flowers are a clear azure-blue self, a color that is so effective in bouquets or buttonholes. Pkt., 10c; oz., 35c.

Nubian—The finest of the maroon or chocolate Spencer class, throwing flowers of exquisite size and color. Pkt., 10c; oz., 30c.

Othello Spencer—Deep maroon; has a rich velvet effect; the best of the dark varieties. Pkt., 10c; oz., 25c.

Princess Victoria Spencer—White, bluish and pink edges. Pkt., 10c; oz., 30c;

Primrose Spencer—Clear, distinct primrose, without a trace of other colors; fine large, wavy standard and wings. Pkt., 10c., oz., 25c.

Royal Purple—A rare new shade in Sweet Peas, a rich purple, almost a true royal, a color that does not exist in the Grandiflora type. Pkt., 10c; oz., 40c.

Senator Spencer—Of finest Spencer form and largest size. The coloring is a combination of deep claret and chocolate, striped and flaked on a light heliotrope ground. The coloring, though dark, is brilliant and attractive. A free flowering, vigorous grower of greatest merit. Pkt., 10c oz., 30c.

Tennant Spencer—The best of the heliotrope shades. It is self colored and the most attractive purple. The flowers are large size, on long, stiff stems. Pkt., 10c; oz., 30c.

Thomas Stevenson—The most brilliant orange scarlet, standard of deeper color than the wings. The flowers are of the finest Spencer form and generally come four to the stem. Pkt., 10c; oz., 35c.

Vermillion Brilliant—The flowers are of perfect form. The bold, erect standard is well waved and fluted, of large size, beautifully rounded and finishing well below the keel. The wings are of the same intense pure scarlet, making a uniform self color throughout. Pkt., 10c; oz., 35c.

Wedgewood—A true self, being a beautiful Wedgewood blue; entirely free from the purple shading found in other blue Spencers. Wedgewood is also larger, grows more vigorously and blooms more freely than other blues. Pkt., 10c; oz., 35c.

Jacob Kaufmann Co. Giant Orchid flowering Spencer Mixture. We have included in this combination nearly all of the Spencers, making it a rare treat, and a lasting pleasure to the grower.

Those preferring to grow all sorts together rather than separate colors, will find this unsurpassed. Pkt. 10c; oz., 20c; 1/4 lb., 75c.

THUNBERGIA—(Black-Eyed Susan.) Rapid growing annual; very attractive; choice mixed. Pkt., 5c.

VERBENA—A pretty annual creeper, with neat foliage and fine flower umbels, useful for beds, borders or window boxes.

Candidissima—Large trusses of purest white flowers. Pkt., 10c.

Defiance—Brilliant scarlet, fine for bedding. Pkt., 10c.

Drummondii—(Montana.) Bluish lilac. Pkt., 10c.

Striata—Striped variety; very pretty. Pkt., 10c.

Venosa—Purplish heliotrope flowers. Pkt., 10c.

Mammoth Hybrida—Extra large flowers; mixed. Pkt., 10c.

Pink Shades—Extra fine mixture of pink varieties. Pkt., 10c.

Purpurea—Purple variety; very pretty. Pkt., 10c.

Hybrida—Fine mixed. Pkt., 5c.

VIOLETS—(Viola.) A free flowering, hardy perennial, easily grown, but seed takes a long time to germinate; all have great beauty and fragrance.

Cornuta—(Purple Queen.) Large single blue. Pkt., 10c.

Alba—A fine white variety. Pkt., 10c.

The Czar—Large blue flowers; fine for forcing. Pkt., 10c.

Queen Charlotte—Large dark blue; fine for forcing. Pkt., 10c.

Odorata—The well-known sweet-scented Violet. Pkt., 10c.

VISCARIA—Hardy annuals, very effective in massing. Many sorts mixed. Pkt., 5c.

WALLFLOWER—Well-known fragrant half hardy perennials, with spikes of beautiful scented flowers.

Dwarf Double Mixed. Pkt., 5c.

Dwarf Single Mixed. Pkt., 5c.

Tall Double Mixed. Pkt., 5c.

Tall Single Mixed. Pkt., 5c.

ZINNIA—(Youth and Old Age.) Most brilliant and showy annuals.

Crispa—Long petals, gracefully curled and crested. Pkt., 5c.

Queen Victoria—Very large flowering, pure white; a handsome variety. Pkt., 5c.

Grandiflora Robusta—Giant Zinnias with huge flowers; an excellent class; finest mixed. Pkt., 5c.

Everlasting or Hardy—Free flowering perennial climbers. Continually in bloom. Fine for cutting. Carmine or mixed. Pkts., 10c.

FRUIT AND ORNAMENTAL TREES, ETC.

We deliver only choice, healthy trees, bushes, etc., and use every endeavor to see that you get only such stock, as will insure you success. A great many of the failures with nursery stock are due to the manner in which they have been handled after being taken from the nursery.

Immediately on receipt of trees, shrubs, etc., have them set or carefully heeled in until such time as you can set them out permanently; do not allow the roots of trees shrubs or plants to be exposed to the sun or wind; often an hours exposure will kill the hardiest tree.

When planting, dig a hole large enough to accommodate the root system without bending or bunching the roots, also somewhat deeper than you expect to set the tree, so that you can fill in several inches of good soil mixed with well rotted manure or bone meal, before setting the tree, etc. Then set the tree, placing the roots as nearly as possible in a natural position; fill in opening about half full with fine dirt, then grasp the tree lifting and shaking it slightly, letting the fine dirt sift in and around the root system, thoroughly saturate the fine dirt just placed with water, so that the dirt will adhere to the roots, then fill in balance of opening with dry dirt packing firmly in and around the tree, setting the tree somewhat deeper than it was in the nursery. Always prune the root system of all bruised or broken ends of roots, making clean cuts from the unders side of root outwardly before planting the tree, prune top back until it is not large than the root system.

NURSERY AND ORNAMENTAL SHRUBS

Our stock is all budded or grafted on two year old roots, therefore when you get a one year old tree you have a three year old root; a two year old tree you have a four year old root; and so on, you have the root two years older than the tree, which is sufficient to insure a strong and rapid growth.

We are in close connection with one of the largest and best nurseries in the Northwest, and can supply all orders with good, strong, healthy stock, free from insects and true to name. All lorders will be packed at the nursery; it will, therefore, take from two to five days before they can be shipped. Kindly keep plant orders separate from seeds. No charge for packing.

The following list comprises the varieties suited to this climate. If other varieties are wanted let us know. We may be able to supply same.

We do not substitute unless we receive special instruction to that effect. If stock is sold out money will be refunded.

APPLES

Two Year, each 45c.

SUMMER APPLES

Duchess of Oldenberg—Medium size, red and pale yellow; flesh juicy and crisp; sub-acid; tree a vigorous grower and good bearer.

St. Lawrence—Large, flesh white and crisp; tree hardy and productive.

Red Astrachan—Fruit medium size, red, juicy and good.

Yellow Transparent—Pale yellow, ripens two weeks before Early Harvest; tender, juicy, sub-acid. Best of early apples.

Early Harvest—Medium size, yellow, tender and juicy.

FALL APPLES

Alexander—Large, deep red, flesh yellowish white, of medium quality; very hardy and productive.

Fameuse or Snow—An excellent apple of medium size, whitish ground, striped with red, flesh snowy white and juicy; abundant bearer.

Gravenstein—Bright red on yellow ground. One of the best on the market.

Maiden Blush—Medium size, fine, prolific.

Rambo—Red streaked on yellow ground.

Waxen—Yellow, large and mild.

Fruit and ornamental trees, berry bushes, roses and flowering bulbs—best varieties for Northwestern growers.

WINTER APPLES

Arkansas Black—Medium size, dark red, a late keeper.

Bismarck—Tree bears very young, a very desirable apple for home use, of good size and quality.

Baldwin—Red, a leading winter variety.

Ben Davis—Red striped, very large and mild.

Blue Pearmain—Purplish red.

Grimes Golden—Golden yellow, highest quality.

Golden Russett—Tree a strong grower, of good size and quality and of grand flavor.

Lady Apple—A novel, dainty, small flat apple; red cheek. Good Christmas fruit. Tree upright and vigorous.

King of Tompkins Co.—Red striped on yellow ground.

Mammoth Black Twig—Very dark red, good variety.

Northern Spy—Greenish, brown ribbed, good keeper.

R. I. Greening—Greenish yellow, best winter apple.

Spitzenberg—Large, oblong; yellowish ground with broken stripes of bright red; flesh yellowish, juicy, delicious rich flavor.

Wagener—Fruit medium to large, deep red in sun, flesh firm sub-acid and excellent; very productive and bears young. Recommended for the Puget Sound country.

Yellow Bellflower—Large, oblong, skin yellow with a beautiful tinge of red on sunny side, crisp and juicy.

Winter Banana—Fruit large and fine grained, a beautiful golden yellow shaded with bright red. An excellent table and market variety.

Wolf River—Large and handsome; greenish yellow shaded with dark and light red; tree a strong grower and a good bearer. September to November.

Yellow Newtown Pippin—A golden yellow, medium size, crisp juicy, of fine flavor.

Delicious—A splendid apple; coming into prominence rapidly. Tree vigorous and hardy and the fruit equals the name in every respect. Fine for market and home use and especially adapted to Washington. Keeps till April.

CRAB APPLES

Nice Stock Trees, Two Years, each 45c.

Hyslop—Large, deep crimson; tree is hardy; fine for the West; November, January.

Red Siberian—Yellow with scarlet cheek. Bears young and abundantly. September.

Transcendent—Very large, pleasant flavor and good for cider; yellow striped red. Very productive. September.

Yellow Siberian—Fruit small, fine golden yellow. Good. August.

APRICOTS

Two Years, each 50c.

Moorpark—Very large; orange with red cheeks.

Royal—Large, yellow with orange cheeks.

CHERRIES

Two Years, each

Regular 65 Extra Fancy Select Trees 6 to 7 ft. 75c.

Bing—Sweet, extra large black, with solid meat.

Lambert—Sweet, one of the largest, deep rich red, firm sweet, fine flavor. July and September.

Black Tartarian—Sweet, very large purplish black, June.

May Duke—Sour, large, dark red. June.

Ea. Richmond—Sour, medium, dark red. June.

Royal Ann—Sweet, light red. June and July.

Gov. Wood—Sweet, large, light, red. June.

English Morello—Fair size, blackish red, rich, acid, juicy, good. August.

Montmorency—Large, red and of good quality, a good bearer and shipper. Sour.

PEACHES

Two Years, each 50c.

Early Crawford—Very large, color yellow, red cheek, flesh yellow, rich and excellent.

Late Crawford—Similar to the Early Crawford, but about two weeks later.

Hale's Early—Medium size, skin white with red cheek. August.

Elberta—Very large, skin golden yellow; where exposed to the sun, faintly striped with red, flesh yellow, fine grain, juicy, rich and sweet.

Alexander—Medium, greenish white, nearly covered with rich red; melting, juicy, sweet. July.

PEARS

Two Years, each 50c.

SUMMER

Bartlett—Large, blush cheek. August and September.

Clapp's Favorite—Earlier than Bartlett; very large.

Early Madeline—Medium, yellowish green, very juicy, melting, sweet.

Angouleme—(Duchesse.) Very large, buttery, rich, juicy, excellent. It succeeds to perfection and is the most popular market variety as a dwarf. October.

FALL

Idaho—Apple shaped, large, good quality. September and October.

Fall Butter—Large, clear yellow, red cheek, fine buttery flavor. One of the best.

Keiffer—Bearing very young, flesh white, juicy; very productive.

SPRAY PUMPS—Every fruit grower needs a Spray Pump. We have an excellent line that we'll guarantee to give satisfaction. See Pages 56.

PRUNES

Two Years, each 50c.

Golden—Medium, golden yellow.

Italian—Dark purple, good quality.

Sugar Prune.

French ("Petite d'Agen")—Medium, violet purple.

Silver—Excellent for drying.

PLUMS

Two Years, each 50c.

Bradshaw—Very large, dark violet red.

Burbank (Japan)—Early, very large, yellow with red cheek, flesh yellow, firm and sweet. Late.

Climax—Extremely early, immense size, delicious flavor and fragrant. Color dark red, flesh yellow.

Yellow Egg—Very large.

Coe's Golden Drop—Medium, golden yellow.

Columbia—Extra large, brownish purple, sugary.

Jefferson—Fine large, yellow, red cheek.

Peach—Very large, brownish red, free-stone.

Reine Claude, or Bavay's Green Gage—Whitish green, blush cheek.

RASPBERRY

One Year, each 20c; 2 for 35c.

Cumberland (Black)—Very large, firm, high quality, hardy and the best mid-season market variety; a good shipper.

Gregg (Black)—Best late blackcap, market favorite. Canes strong, productive, firm, meaty and fine flavor.

Superlative—An extremely large red raspberry, sweet and delicious; one of the best.

Marlboro—Fruit of large size, bright scarlet, excellent flavor, good shipper, heavy canes, early and hardy.

Japanese—(Wine Berry.) Ornamental both in fruit and plant. Fine for canning.

BLACKBERRY

Himalaya Giant—A strong grower and heavy cropper, fruiting from August to November.

New Mammoth—This wonderful new blackberry is a rampant grower, of trailing habit; the foliage is large, thick, of a deep green color. It is enormously productive. **Two-year-old, each 25c.**

Everbearing—A genuine, practical, profitable continuous-to-fall bearing red raspberry. Fruit commences to ripen with the earliest and continues on young canes until October.

LOGANBERRY

A strong grower and prolific bearer. Fruit the same shape and size of the largest Blackberry; color dark red when full ripe; has a Blackberry and Raspberry flavor; a fine shipper. **Each 25c; 2 for 45c.**

CURRANTS

Two Years, each 25c; 2 for 45c

Cherry—Very large, deep red; fine for preserving; valuable market variety.

Fay's Prolific—A new currant, which has well sustained the claims of its disseminator; it is larger than the Cherry, has less acid and is much more prolific.

Victoria—Large, bright red bunches, very long; an erect grower; late productive and very valuable.

Black Naples—Very large, black; valuable for jams and jellies.

White Grape—Large, yellowish white; very hardy and productive.

Perfection—The only small fruit ever awarded the gold medal of the Western New York Horticultural Society. A cross between Fay's and White Grape, retaining the valuable characteristics of both parents.

GOOSEBERRIES

Each 20c; 2 for 35c.

Oregon Champion—Berries very large; pale green color; very sweet and fine for table use and pies; bush strong, not very thorny; very prolific bearer; most popular sort we have.

Red Jacket Josselyn—Of large size, smooth, prolific and hardy; of best quality; a wonderful cropper, with bright, clean, healthy foliage. **Prices, each 25c; per 10, \$2.00.**

Houghton—Vigorous grower, abundant bearer; fruit of medium size, pale red, sweet and juicy.

Industry—Large oval; dark red, hairy, rich and agreeable; vigorous and productive. **Prices, each 30c; per 10, \$2.50.**

Pearl—Very large, yellowish green. One of the finest European berries. For eating ripe they are delicious. No garden should be without a few bushes. **Each, 25c; 10, \$1.50.**

QUINCE

Two-Year Old, each, 75c; 10, \$6.00.

Champion—Large, yellow; flesh cooks very tender; flavor is most delicious; more productive than the orange, ripening two weeks later.

GRAPES

Extra Large and Strong Roots, 25c each; per dozen, \$2.00.

Concord—Large, black grape, bunches compact, berries round, sweet and pleasant; very popular.

Delaware—Best of our native grapes; grows freely and is perfectly hardy; ripens early; berries small, light red.

Moore's Early—Bunch medium; berry large, resembling Concord, but more pulp and is earlier.

Worden—Bunch very large and compact; berry large; black; an improved Concord.

STRAWBERRY

Dozen, 15; 100, 75c; 1,000, \$6.00. When wanted in large quantities, write for special prices.

Clark's Seedling—Berries large, firm and of delicious flavor; vines bear large crops; is especially adapted to dry soil; excellent shipper.

Magoon—Berry large, fine and excellent; sub-acid flavor; bears heavily and throughout the season.

Marshall—One of the best all-round strawberries; very large; dark crimson throughout; fine flavor; a superb market and table berry. In size, appearance, flavor and sweetness it is unsurpassed. A delicious table and canning berry, but not a long shipper.

FALL OR EVERBEARING STRAWBERRIES

The Fall bearing Strawberry has come to stay. It has won this right on account of its magnificent record. They differ from other Strawberries only in that they blossom and fruit continuously from June till November, but the crop in September and October is the largest, and may be made much heavier if the blossoms are kept picked off up to August. Parties in this state are now growing these varieties and shipping berries as late as October and November and receiving enormous prices. Young plants set out this spring will produce a good crop of berries this fall, and all the runners they make will fruit freely from spring until fall of next year. The plants set this year, which will then be established, will produce berries in such numbers as to be almost beyond belief. They require nothing special in the way of cultivation. Any conditions that will produce a good crop of ordinary garden Strawberries will suit these fall or everbearers.

	By mail, post paid.		
	Doz.	100	
Americus	40c	\$2.75	
Progressive	40c	2.75	
Superb	40c	2.75	

Spray for small fruits, for eggs of the green aphis, woolly aphis, red spider and the tent caterpillar, spray thoroughly during the winter with lime sulphur solution, 1 part to eight parts of water.

For canker worms, tent caterpillar, currant worms, raspberry slug, gooseberry fruit worm, and leaf crumpler, etc., in fact for any thing that eats the leaves, use one pound of dry arsenate of lead to 50 gallons of water, spraying thoroughly.

For all kinds of sucking insects, such as green aphis, black aphis, etc., use black-leaf 40 as often as is necessary during the summer as per directions on can. For woolly aphis it will require pressure enough from the nozzle to cut the web to insure satisfactory results.

COMMERCIAL FERTILIZERS PROFITABLE

A 100-lb. Bag of High Grade Commercial Fertilizer will contain more soluble and available plant food than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than 2 tons of manure, and no weed seeds to worry over.

ROSES

Planting and Care

In our favored section Roses attain a perfection seldom equaled, but one cannot expect them to thrive and bloom unless you care for them. We offer the following simple suggestions.

Soil—Any good, well-drained garden soil, enriched with fertilizer, will give excellent results. If heavy clay soil, mulch well with burnt earth and manure, rotted sod or leaf mold.

Watering—When setting out, water regularly until roots are well set, then about once a week, unless the ground is very dry; in such cases more often. Do not get the foliage wet after a hot day. This causes mildew.

Finally—Keep the surface well worked around the roots. This is as necessary as water or fertilizer.

When planting cut back freely, and the bush will recover quickly.

Abbreviations—T., Tea; H. T., Hybrid Tea; H. P., Hybrid Perpetual; Poly, Poly-anthus.

The prices do not include postage. If roses are to be sent by mail, postage will be 6c each, or 30c per dozen additional. We recommend that plants be shipped by express when possible, as we can pack them better, they reach destination in much better condition, and the cost is very little, if any, more.

TEA ROSES—Have always been admired for their delicious fragrance, and their delicacy of coloring. The Tea Roses do not require the same pruning recommended for the Hybrid Teas: cut out all thin wood, and cut back the stronger shoots to a prominent eye.

HYBRID PERPETUAL ROSES—The collection here offered embraces as complete a range of colors as it is possible to bring together in such a number of plants, with freedom of flowering, perfect form, fragrance, hardiness and general excellence.

RAMBLER ROSES—The Rambler Rose has captured the world, and surely no plant has proven more satisfactory. They are hardy and bear flowers in innumerable quantities, thousands of them to a single plant. We know nothing in the Rose family that will compare for freedom of bloom and brilliancy of colors and hardiness.

HYBRID TEA ROSES—Everblooming Hybrid Tea Roses. The time has come when the hybrid Tea or everblooming rose has found its place at the head of all roses. We have a rose with the free flowering qualities of a Tea Rose, the hardiness necessary for out door planting, and the rich brilliant and varied colors of all other classes.

CLIMBING ROSES—Hardy, large flowering; the lavish profusion of bloom on climbing roses; literally hundreds of flowers on each plant; their beautiful colors and exquisite fragrance render them unequalled for covering houses, arbors, pergolas, fences, and boundary walls.

TWO YEAR OLD FIELD GROWN ROSES—Our stock of roses include such kinds as we find most desirable and the best for this climate. They are all large, sturdy field grown plants, 2 years old or more.

BEAUTIFUL ROSES OF RECENT INTRODUCTION

British Queen, H. T.—Pure white, large, full flowers of exquisite form, opening freely in all weathers; promises to be one of the best white roses for bedding and cutting. **Each 75c.**

Edward Mawley, H. T.—Flowers large and full, of finest form, with beautiful, long pointed buds; color deep rich, velvety crimson, which does not fade; flowers keep well when cut; growth is vigor-

ous, upright and branching, with handsome foliage. Edward Mawley is one of the finest. **Each 50c.**

George Dickson, H. T.—Very strong and vigorous, upright growth, flowers of the largest size; perfect in shape and unique in color, being a velvety blackish crimson with the back of the petals heavily veined with pure crimson maroon. Delightfully scented. **Each 75c.**

* Before the rose, signifies a new rose of great merit.

† Before the rose, signifies one of the best roses of recent introduction.

Radishes to be crisp and tender must be grown quickly. Light applications of nitrate of soda will produce good results early in the season.

Lady Hillingdon, T.—Deep apricot yellow, long and pointed bud; a fine forcing or garden rose, excellent for cutting. Flowers are of a good substance, very lasting and foliage handsome and luxuriant. Lady Hillingdon is considered the best decorative rose in its class. **Each, 50c.**

Irish Elegance, T.—Large, single, golden bronze flower of great beauty, free and constant bloomer, with deep bronze foliage; a fine buttonhole rose. These single roses make a charming garden display, blooming profusely, and are also splendid for exhibition. **Each 50c.**

Irish Simplicity, T.—Almost single, pure white and of immense size. The great size and substance of the petals which are slightly cupped and of the golden yellow anthers, may readily bring to mind the comparison to a huge water lily. **Each 75c.**

Irish Fireflame, H. T.—A dainty new single rose from Ireland, producing beautifully formed buds, which hold their shape a long time. Color old gold shaded and flamed with ruddy crimson. **Each 75c.**

Juliet, H. P.—A magnificent new rose, the color being a wonderful combination of old gold on the outside of the petals and a rich, rosy red on the inside. Flowers are large, full and delightfully scented. The foliage is luxuriant and beautiful. Juliet is a vigorous and abundant grower and the most pleasing and distinctive novelty ever offered. **Each 50c.**

Lyon, Pernetiana—The Lyon is a beautiful shrimp pink with salmon and chrome buds, beautifully formed; full, globular flowers of rare beauty; a continuous and free bloomer. **Each 50c.**

Mad. Eduard Herriott, H. T.—The famous winner of the Daily Mail Prize. The color being terra-cotta bronze and geranium red, a new combination of colors in a rose. The bud is long and sharply pointed; the foliage is dense, leathery and a deep glossy green; a rare beauty. **Each 60c.**

Ophelia (W. Paul, 1912), H. T.—Brilliant salmon flesh shaded with rose on outer edges of petals, with a heart of glowing peach-pink and orange yellow blendings, all passing finally to lighter shades; fragrant. **Each 60c.**

Arthur Goodwin—A beautifully rich colored, coppery orange; as it matures it opens to a soft salmon pink. A good full flower. **Each 40c.**

AVOCA, H. T.—Deep scarlet crimson flowers, of perfect form; very fragrant. **Each 35c.**

Alexander Hill Gray, H. T.—The best and largest pure yellow Tea Rose yet introduced. Its color is a solid yellow throughout. Marchiel Neil-like lemon yellow; strongly tea scented. **Each 40c.**

Bride, T.—An ever-blooming pure white; buds pointed and the ends of the petals slightly recurved. **Each 35c.**

Bridesmaid, T.—Pink; buds and flowers very double. **Each 40c.**

Betty, H. T.—Ruddy gold; overspread with golden yellow; flowers large; fairly double; fine form, buds very long and pointed, very large petals; delicately perfumed. **Each 40c.**

Bessie Brown, H. T.—Canary white; large, full; of very fine form. An exhibition Rose. **Each 35c.**

Captain Hayward, H. P.—Immense flowers in great freedom; sweetly scented; color deep glowing red, shaded crimson. **Each 40c.**

Chas. Dingee—The best Rose for out door culture; color rose tint, shading off into a creamy white. **Each 40c.**

Dorothy Page Roberts—Coppery pink, suffused with apricot-yellow; very free and perpetual; a delightful garden Rose. (H. T.) **Each 40c.**

Dr. Grill, T.—Clear buff pink, passing to clear rose and fawn; most desirable always in bloom. **Each 60c.**

Duchess of Westminster—A peerless Tea like Rose, the blooms are very large, full and perfectly formed with high pointed center; very sweetly perfumed; the color, which is very novel, is a dainty clear Rose Madder, the growth is vigorous, erect and of very free flowering habit. **Each 60c.**

Etoile de Lyon, T.—Sweet scented; color rich golden yellow; blooms freely. **Each 40c.**

Franz Deegan, H. T.—This beautiful Rose is yellow, and a fine grower, having the good habit of throwing up numerous canes. **Each 60c.**

Frau Carl Druschke, H. P.—The pink American Beauty, makes splendid buds and immense flowers; perpetually double. **Each 40c.**

Gen. McArthur, H. T.—Dazzling crimson scarlet; delicious perfume and magnificent foliage; blooms in profusion. **Each 40c.**

Gloire de Dijon—A combination of Rose, Salmon and yellow, flowers very large and full; a good climber. **Each 40c.**

His Majesty, H. P.—Dark, deep crimson, shaded deep vermilion-crimson towards the edges; deliciously perfumed. **Each 40c.**

Hoosier Beauty—Crimson scarlet with darker shading; velvety texture. Buds long and pointed; deliciously fragrant. **Each 60c.**

***Hoosier Beauty**—Crimson scarlet with Harry Kirk, H. T.—Deep sulphur yellow, passing to a lighter shade at the edge of the petals; robust growth; free branching habit. **Each 60c.**

Jubilee, H. T.—A splendid large flowered hybrid Tea Rose of intense coloring; fiery maroon, almost black. **Each 40c.**

Lady Pirrie—Deep coppery salmon, shaded to apricot and fawn; strong, erect growing and free blooming; an ideal variety. **Each 40c.**

La Tosca—A beautiful silvery pink, deep center; very large perfect buds and flowers. Has taken many prizes. **Each 40c.**

½ **Mrs. Sam Ross**—A flower of the largest size and greatest refinement; a lovely and uncommon shade of color difficult to describe; it may be said to shade from pale straw color to light-chamois yellow, with a distinct flush of buff on the reverse of the petals. **Each 60c.**

Mrs. Peter Blair—Lemon chrome, with globular yellow centre; medium size, lovely shape; deliciously perfumed. **Each 75c.**

Mrs. Geo. Sawyer, H. T.—A free growing, free blooming and delightful novelty of a most distinctive shade of pink. It comes next only to radiance as a beautiful kind for cut flowers. **Each 40c.**

Mrs. Weyness Quinn, H. T.—Intense lemon chrome flushed orange, becoming deep canary yellow when fully opened; very free flowering and deliciously fragrant. **Each \$1.25.**

***Mrs. A. Waddell, H. T.**—Color deep reddish apricot toned with salmon; long pointed buds. **Each 60c.**

Maman Cochet, T.—White, immense size; exquisitely fragrant; long pointed buds. **Each 35c.**

Margaret Dickson, H. P.—White with pale flesh centre; large shell shaped petals; fragrant. **Each 35c.**

Mabel Morrison, H. P.—Of purest velvety white; very double and shrouded. **Each 35c.**

Mrs. David McKee, H. T.—Creamy yellow, large, full and free; best of its color. **Each 60c.**

Madam Ravery, H. T.—Color orange yellow; long pointed buds; flowers of fine form. **Each 40c.**

Marechal Niel, N.—Beautiful deep yellow and of fine form; globular; a good pillar Rose. **Each 60c.**

Melody, H. T.—A most floriferous bloomer, continuing for a very long period; the blooms are carried on erect stems, and are of good size; the buds are of beautiful formation, long and pointed; color, pure deep canary yellow, with primrose edges. **Each 35c.**

Mrs. Chas. Russell, H. T.—Rosy carmine, with scarlet centre, very brilliant and pleasing; form of flower excellent; fragrance delicious; splendid keeper and very free bloomer. **Each 75c.**

***Marquis de Sinity**—Yellow fluted orange, deep saffron yellow, flushed reddish copper; flower large beautiful dark foliage. (H. T.) **Each 60c.**

Orleans—(Poly) Clusters of bright rosy red flowers, with center shaded to pure white. **Each 35c.**

Pink Frau Karl Druschke—Immense globular flower of a beautiful silvery pink color. On account of its size and color this variety will soon gain the same popularity as the famous Frau Karl Druschke. **Each 40c.**

Papa Gontier, T.—A vivid cherry red color, shaded yellow; reverse of petals crimson. **Each 35c.**

***Pharisear, H. T.**—Silvery pink suffused salmon; buds long and pointed; open flowers large; reflexed petals; stems excellent; a very beautiful sort. **Each 40c.**

Tipperari—Beautifully formed buds of a bright canary yellow, produced with a great freedom. A fine Irish Rose; with all the requisites of a good garden and decorative variety. **Each 75c.**

***Willowmere, H. T.**—An improvement on the famous Lyon Rose; more vigorous; stronger stems, long elegant buds; coral red suffused with carmine, opening into a large full flower of a rich shrimp pink, shaded to yellow in the center. **Each 75c.**

***American Beauty**—(Climbing.) Rich crimson color; delightful fragrance; very free bloomer. **Each 40c.**

Belle Siebrecht, H. T.—A superb pink; the buds are long and pointed. **Each 40c.**

Beauty of Glazewood—A combination of copper; carmine and salmon yellow; a strong fast climber. **Each 40c.**

***Belle Siebrecht**—A superb pink; the buds are long and pointed. **Each 40c.**

Cecil Brunner—Clusters of pretty pink flowers; especially beautiful in bud. **Each 35c.**

Dr. Van Fleet—Flowers when open measure 4 inches in diameter; the center is built high; petal beautifully undulated and cupped; the color is a remarkable delicate shade of flesh-pink on the outer surface, deepening to rosy flesh in the center; the flowers are full and double, of delicate perfume; buds pointed, superb, grand climber. **Each 40c.**

Flower of Fairfield—A perpetual flowering crimson rambler. The flowers are bright scarlet, and produced in great profusion.

Mad. Caroline Testout—Covered during the whole season with immense globular flowers of the same beautiful shade of pink as seen in the bush sort. **Each 40c.**

Marechal Niel—Beautiful deep yellow and of globular form. A good pillar Rose. **Each 40c.**

Papa Gontier—A native sport from this favorite variety. **Each 40c.**

Pink Cherokee—Lovely single blossoms 3 to 5 inches in diameter, saucer-shaped and of a beautiful shade of light pink. **Each 35c.**

Reve de Orr—(Climbing Saffrano.) Deep yellow, sometimes coppery yellow or rosy buff. **Each 40c.**

Silver Moon—A grand new climbing rose of very strong rampant growth; foliage very glossy; beautiful creamy white flowers in clusters. **Each 40c.**

***Sunburst, C. H. T.**—The grandest of all yellow climbing roses. A counterpart of sunburst, except that it is a vigorous climber. **Each 75c.**

Crimson Rambler—Too well known to require description; everyone is familiar with its large clusters of crimson flowers.

ROSES—GENERAL COLLECTION

†American Beauty, H. P.—Rosy crimson; large and fragrant. **Each 35c.**

†**Betty, H. T. A.**

Cleo, H. P.—Flesh color; very full; good size. **Each 35c.**

Cecile Brunner, Poly.—Bright, rose, yellowish in center; very sweet; dwarf.

***Duchess of Wellington, H. T.**—Introduced in 1909; one of the newer roses; tense saffron yellow, changing to coppery yellow. **Each 75c.**

Florence Pemberton, H. T.—Gold medal; large, full flowers, perfectly formed; creamy white with suffused pink. **Each 40c.**

Frau Karl Druschke, H. P.—The best pure white rose. Flowers large, pure white with very deep buds. Should be in every collection. **Each 40c.**

Gen. Jacqueminot, H. P.—The old favorite red. Glowing scarlet, large, fine and fragrant. **Each 35c.**

Gruss an Teplitz, T.—Probably the most floriferous and best garden rose; red, richest crimson; fine reddish foliage. **Each 35c.**

†Hugh Dickson, H. P.—Considered best red rose in existence; awarded gold medal and other prizes. Large flowers; full and well formed. **Each 40c.**

***Jos. Hill, H. T.**—Elegant large buds, full flowers of beautiful, clear golden copper, edging to salmon pink. **Each 40c.**

Kaiserin Augusta Victoria, T.—One of the best. Vigorous, free bloomer; very fragrant; color, beautiful clear white, tinted yellow. **Each 40c.**

Killarney, H. T.—Robust grower, extremely long buds, large petals; color bright carmine pink, marbled cream white. **Each 40c.**

La France, H. T.—Delicate silvery rose; large, fine, fragrant. **Each 40c.**

Le Progress, H. T.—Yellow nankeen, with yellow buds. A grand rose. **Each 40c.**

Lady Roberts, H. T.—Beautiful gold medal rose, rich apricot, base of petals coppery red, edges shaded orange, pointed buds. **Each 40c.**

My Maryland, H. T.—Beautiful pink, with paler edges; delightfully fragrant. **Each 35c.**

†Mme. Abel Chatenay, H. T.—Bright rosy carmine salmon, shaded vermillion. An extra good rose. **Each 40c.**

Mad. Caroline Testout, H. T.—The official Portland rose; very large; color bright satiny pink, dark center, edges of petals bordered soft carmine pink; exceedingly free flowering and vigorous. A favorite everywhere. **Each 40c.**

Mad. Leon Pain, H. T.—Silvery salmon, center orange yellow; large, full. **Each 35c.**

***Mad. Melanie Soupert, H. T.**—One of the best garden roses. Vigorous, free flowering; salmon yellow, suffused carmine; large, full, fine buds. **Each 60c.**

Maman Cochet, Pink T.—Clear pink, changing to silvery rose; large and full. A general favorite. **Each 35c.**

***Mrs. Aaron Ward, H. T.**—Deep, rich Indian yellow, often tinted salmon. A constant blomer. **Each 40c.**

ROSES—GENERAL COLLECTION

Mrs. John Laing, H. P.—Soft pink, large and fine form; free bloomer. **Each 35c.**
Moss, Dark—Carmine red moss; old fashioned favorite. **Each 35c.**

Moss, White—White flowers on stiff stems; very fragrant. **Each 35c.**

Paul Neyron, H. P.—An old favorite; deep rose; enormous size. **Each 35c.**

Prince de Bulgarie, H. T.—Deep rosy flesh shaded with salmon. **Each 40c.**

½ Rayon d'Or—(Peru.) Flowers are large, full, open freely. Buds long, pointed, of deep orange. **Each 75c.**

Rhea Reid, H. T.—Deep crimson scarlet; fine buds and good blooms on strong canes. **Each 40c.**

Ulrich Brunner, H. P.—Extra strong grower; almost thornless. Cherry red, flamed scarlet; long stems. A good red rose. **Each 35c.**

STANDARD OR TREE ROSES

Price of All Tree or Standard Roses, \$1.00 to \$2.00 each, according to size of head.

Tree Roses are budded or grafted on hardy Rose stocks about four feet high. They soon make good-sized heads, forming a small tree; especially desirable for planting as single specimens in backgrounds or rows along walks or driveways.

Order any color or variety you wish and we will send it or give you as good a substitute as possible. We aim to have the following varieties in stock:

Mrs. Jno. Laing	Mad. Caroline Testout	Gen. McArthur	Richmond
Prince de Bulgarie	Countess of Gosford	Marechal Neil	Baroness Rothschild
Lyon	Dorothy Perkins	Mad. Abel Chatney	Hugh Dickson
La France	Gloire de Dijon	Ulrich Brunner	Gruss an Teplitz
K. A. Victoria			F. K. Druschki

CLIMBING AND PILLAR ROSES

Two-Year-Old Bushes, 35c each, except as noted

American Pillar, Wich.—A beautiful bright pink with yellow anthers. The splendid large single flowers are borne in great clusters. **75c.**

Climbing Cecil Brunner—Strong rampant climber, ever-blooming clusters of pretty pink flowers, especially beautiful in bud. A gem among climbing roses.

Gainsborough—Graceful flower of dainty shell pink color and satiny finish. Hardy ever-blooming and a free climber.

Gloire de Dijon—An old favorite, noted for its free flowering, its delicate tea scent and its shades of color, being a blending of amber, carmine and cream.

Climbing Kaiserin, Mrs. Robert Peary—Flowers fine, ivory white, of heavy texture and large size.

Climbing La France—Identical with the well-known La France; vigorous climber.

La Marque—Flowers of good size, borne in large clusters; color, pure white.

Dorothy Perkins—Polyanthus type; color a beautiful bright shell pink; flowers large, very double, petals prettily crinkled; blooms in large clusters of 30 to 40; a splendid keeper.

Climbing Madame Caroline Testout—Covered during the whole season with im-

mense globular flowers of the same beautiful shade of pink as seen in the bush sort.

Madame Alfred Carriere—Extra large full flowers, very double and sweet, and a most profuse and persistent bloomer; color, rich, creamy white, faintly tinged pale yellow and blush.

Climbing Frau Karl Druschki—A pure paper white flower of largest size. Same as the bush variety only with vigorous climbing tendencies. **Each 50c.**

Reine Marie Henriette—A strong, vigorous grower; flowers large, full and of fine form; color glowing crimson, elegantly shaded.

William A. Richardson—Color rich coppery yellow, flushed with carmine; a very beautiful variety, having few equals.

Philadelphia Rambler—An improved type of the favorite Crimson Rambler; color, deeper, more brilliant and lasting; flowers perfectly double, borne in great profusion, much earlier than the old type; vigorous, luxuriant foliage, not so susceptible to mildew.

Tausendschon—A lovely shade of soft pink, free blooming; a vigorous climber with splendid foliage.

Commercial Fertilizers Profitable—A 100 pound bag of high grade fertilizer will contain more soluble and available plant food than 4000 pounds of stable manure of average quality. How much cleaner and easier to handle a 100-pound bag than two tons of manure, and no weed seeds to contend with.

SHADE AND ORNAMENTAL TREES

Prices range according to the age, size and general shape of the trees.

When ordering trees state the amount of money you wish to lay out for each tree, and we will send you as fine a specimen for that amount as you could wish.

Ailanthus—(Tree of Heaven.) Rapid growing, with long, feathery foliage. 75c to \$1.00 each.

Apple Crab—Double flowering. 50c to \$1.00 each.

Ash, White—50c to \$2.00 each.

Birch—Purple, Black, White or Yellow. 75c to \$1.50 each.

Birch—Cut-leaved. \$1.50 to \$2.00 each.

Catalpa—Hardy. 50c to \$2.50 each.

Chestnut—American or Spanish. 40c to \$1.50 each.

Elm—American or Cork-Barked. 75c to \$1.50 each.

Hawthorne, English—For edging. \$15.00 to \$20.00 per 100.

Laburnum—(Golden Chain.) 50c to \$1.00 each.

Linden—American or European. 50c to \$1.00 each.

Locust—Black or Honey. 50c to \$1.00.

Magnolia Grandiflora—\$2.00 to \$5.00 each.

Maple—Soft Norway, Sycamore, cut-leaved, silver-leaved or sugar. 50c to \$2.00 each.

Mulberries—75c to \$1.00 each.

Poplar—Carolina, Lombardy or Silver. 35c to 75c each.

Tulip Tree—75c to \$1.50 each.

Willow—Babylonian, Kilmarnoch or American. 50c to \$2.50 each.

FLOWERING SHRUBS

Althea—(Rose of Sharon.) 50c to \$1.00 each.

Azalea, Mollis—Hardy; will stand our winters. 75c to \$1.00 each.

Barberry—Purple leaved. 50c each.

Broom, Scotch—Yellow. 50c to \$1 each.

Broom, Red—50c to \$1.00 each.

Camelia Japonica—Separate colors. 50c to \$1.50 each.

Cartaegus Pyracantha—(Firebush.) Scarlet berries. 60c to \$1.50 each.

Contoneaster Microphylo—Dwarf for rockeries. 50c each.

Cotoneaster Simonsii—Tall red berries. 75c each.

Euonymus Japonica—Silver or golden foliage. 50c to \$1.00 each.

Forsythia—One of the first plants to flower in the early spring. 50c each.

Hydrangea Paniculata—35c to 75c each.

Hydrangea, Hortensia—A distinct variety, with very large flowers of light pink on opening, changing to a pure mauve. 50c to \$2.50 each.

Hydrangea, Rosea—Rosy-red, a desirable variety. 50c to \$2.50 each.

Holly—English or variegated. 50c to \$10.00 each.

Laurel English—Well branched. 25c to \$2.00 each.

Laurustinus—White flowered, well branched. 50c to \$1.50.

Lilac—White, purple or Charles X. \$1.00 to \$5.00 each.

Maple, Japanese—Assorted colors. \$1.00 to \$2.00 each.

Myrica Cerifera—Fragrant flowers. 50c each.

Quince—Japanese flowering varieties. 50c to \$1.00 each.

Rhododendron—Native, nursery grown. 50c to \$1.50 each.

Spirea—Bridal Wreath, Thunbergii or Van Houttei. 50c to 75c each.

The Northwest is the ideal berry and fruit country. Buy through us from Western Growers and you will not be disappointed.

COMMERCIAL FERTILIZERS PROFITABLE

A 100-lb. Bag of High Grade Commercial Fertilizer will contain more soluble than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than 2 tons of manure, and no weed seeds to worry over.

DAHLIAS

No country grows Dahlias better than the Pacific Northwest. In selecting the list offered here we have tried to avoid such varieties that would give only fair satisfaction. Of the older Show Dahlias we have listed only a few of the best, while of the Cactus, Decorative and Paeony flowered varieties none but those which have great merits have been included. Dahlias should be ordered as soon as possible, so as to make sure that the stock is not sold out. The best time for planting them is May. They do not require a rich soil, but will be thankful for lots of water. When cutting flowers of Dahlias, be sure to cut them as late as possible in the evening and put them in water right away. They will keep very much longer than when picked during the daytime.

CACTUS

Amazone—Very large flowers of perfect form; amaranth red suffused purple. 25c each.

Aurora—Shades of yellow, buff, copper, salmon pink and creamy white tips. 35c each.

Country Girl—The flowers are of splendid form; color golden yellow, tipped bright amber. 25c.

Countess of Lonsdale—Very large and fine salmon orange suffused lavender. 25c.

Floradora—Rich garnet, beautiful form, with long stems; an extremely early and profuse bloomer. 25c.

J. H. Jackson—Rich crimson maroon, the finest of color; very free blooming; a magnificent flower. 25c.

Kriemhilde—Clear rose pink shading lighter toward center; beautiful; fine for table decoration. 25c.

Mrs. Alfred Paine—Glistening snow white, distinctively edged bronze, yellow or old gold. 25c.

Mrs. H. J. Jones—Rich scarlet tipped white; very attractive; a unique color combination. 25c.

Standard Bearer—A most brilliant scarlet. 25c.

Uncle Tom—Dark maroon, nearly black. 20c.

DECORATIVE

Avalanche—Immensely large flower, pure white; new, 75c.

Crazy Quilt—Yellow marked with white. 20c.

Fraulein Budde—Large showy flower of lilac rose; strong stems. 50c.

Hortulanus Fiet—Immense large flower; pink, suffused with gold. 50c.

Princess Juliana—One of the best white cut flowers, free flowering. 40c.

Multnomah—New decorative Dahlia. The center is clear yellow, shading to orange, tinted with rose. 35c.

Souvenir de Gustave Doazon—The flowers of this variety are even larger than Mlle. Charvet, growing 7 to 8 inches in diameter, with ordinary culture; color rich orange red. 20c.

SHOW

Mina Burgle—A splendid brilliant scarlet Dahlia with erect flowers of long keeping qualities. 40c.

Dreer's White—The best pure white quilled Dahlia; very large. 30c.

Frank Smith—Maroon, almost black, often tipped and marked with white. 15c

Grand Duke Alexis—A popular Dahlia; color white tinged soft lavender under the edges, petals quilled. 25c.

Governor Guild—The largest and purest show Dahlia in existence; the color is showy white. 25c.

William Pemberton—Deep Orange yellow splashed with bright scarlet. 50c.

Commercial Fertilizers Profitable—A 100 pound bag of high grade fertilizer will contain more soluble and available plant food than 4000 pounds of stable manure of average quality. How much cleaner and easier to handle a 100-pound bag than two tons of manure, and no weed seeds to contend with.

Get a hand Cultivator for your garden and you will save two-thirds of the work; gardening then becomes a pleasure. See our tool list at end of catalogue.

PAEONY FLOWERED OR ART

Andrew Carnegie—Salmon pink with large yellow center. 50c.
Beacon—Strong grower with bright scarlet flowers. 50c.
Bertha von Suttner—Twisted petals, delicate salmon pink, shaded yellow; very large flower. 60c.
Duchess of Brunswick—Immense red flower, shaded apricot; strong, erect stems. 75c.
Geisha—A combination of brilliant scarlet and gold, with an exquisite ring of clear yellow at the center; the pride of the Peony-flowered Dahlias. 50c.

Great Britain—Very large flowers of deep mauve; perfect form. 50c.
Germania—Scarlet; fragrant. 25c.
H. J. Lovink—Immense flower; daintily shaded lilac on white ground. 40c.
P. W. Jensen—Rosy salmon with yellow shading. 40c.
Queen Wilhelmina—Pure white. 35c.
Ampelopsis Quinquefolia—(Virginia Creeper.) 35c.

HARDY CLIMBING PLANTS

Ampelopsis Veitchii—(Boston or Japan Ivy.) 35c.
Clematis—Two years, 50c each; 3 to 4 years, 75c each.
Clematis Henrii—Large, single, white.
Clematis Jackmanni—Large, purple.
Clematis Mad. Edward Andre—Fine, red.
Clematis Mad. Baron Viellard—Large, light rose, shading to lilac.

Clematis Duchess of Edinburg—Large, double, white.
Clematis Paniculata—Hardy, small, white.
Begonia Radicans—(Trumpet Creeper.) 50c each.
Honeysuckle—Sweet scented, ever blooming. 50c each.
Ivy, English—Large plants. 15c to 25c each.
Ivy, Variegated—15c to 25c each.
Jasmine—White. 50c each.

DWARF PLANTS FOR HEDGES

Cypress Monterey—Small plants. Per 100, \$7.00 to \$10.00.
Box, Dwarf—\$5.00 to \$10.00 per 100.
Box, Gold and Silver—\$1.50 to \$2.50 per doz.

Privet—Small plants. 50c doz.; large, \$1.00 to \$1.50 per doz.
Veronica—Fine for edging on flower beds and cemetery lots. 15c each; \$1.00 doz.; \$5.00 to \$7.50 per 100.

CONIFERS AND EVERGREENS

Abies Cilicica—(Fir.) 75c to \$1.50 each.
Arbor Vitae—Compacta, Tom Thumb, Globosa, Golden, Pyramidata or Siberica. 50c to \$2.50 each.
Aucuba Japonica—50c to \$1.00 each.
Cedrus Deodora—75c to \$3.50 each.
Cypress—Lawson, Italian or Monterey; well-shaped trees. 75c to \$2.00 each.

Juniper—Golden, Excelsa, Irish, Swedish or Virginiana. 50c to \$3.00 each.
Retinspora—Argentina, Gracilis or Plumosus. \$1.50 to \$5.00 each.
Spruce—Canadian, Norway, Oriental or Colorado Blue. 75c to \$5.00 each.
Yew—Erecta, Irish or Golden. 75c to \$2.00 each.

The Jacob Kaufmann Co.'s standard in seeds is the highest it is possible to attain today—and yet we aim for further betterment.

DON'T BUY cheap strains of Cauliflower seed. Only the best selected strains can be depended upon to produce a big percentage of large, solid, white heads.

All prices are subject to market changes.

Add postage at zone rate if ordering by mail.

FERTILIZERS

We can supply the following fertilizers in quantities to suit. If wanted in large lots, write for prices.

When there is such a scarcity of chemical fertilizers and prices of these tremendously high, we would draw your attention to our Blood and Bone Fertilizer. Though lacking in potash it will be found a splendid fertilizer for many things, and its comparatively low price brings it within reach of everybody.

NITRATE OF SODA

A fertilizer quick in action and used for the nitrogen it contains. It creates a very rapid growth, is odorless, acts very quickly, and is entirely soluble. It should be applied only when the plants are above the ground, usually in a combination with some other fertilizer.

GROUND LIME ROCK

Used for neutralizing soil acidity, at the rate of one to two tons per acre.

Lime is not a direct fertilizer, but improves very much the condition of swampy and peaty soils. It also makes heavy clays light and porous, and renders the plant food more available.

Based on chemical analysis, we find that almost all the soil in the Puget Sound district is in need of lime. If soil is acid enough to need liming at all it will pay to use from one to two tons per acre, some soils require more. To determine if your soil is in need of liming, take a small piece of blue Litmus paper and insert it in the soil so that it will absorb the moisture from the soil, when it will become a reddish color, showing the acidity in the soil. The ground rock can be applied to growing crops without any chance of injury to the crop.

	1 lb.	10 lbs.	25 lbs.	50 lbs.	100 lbs.
Nitrate of Soda	\$0.10	.....	.....	.....	2.00
Superphosphates, total Phosphoric Acid 18-19 per cent	.05	.25	.50	1.00	1.75
Fish Scraps	.05	.35	.75	1.40	2.75
Air Slacked Lime	.02½	.20	.40	.70	.....
BLOOD AND BONE	.05	.50	1.00	1.90	3.50
Blood Meal	.05	.....	.....	.....	.....
Ground Lime Rock	.....	.....	.....	.60	.90
Hydrated Lime	.03	.....	.....	.75	1.25

INSECTICIDES, FUNGICIDES AND INSECT POWDERS

Arsenate of Lead—½ lb., 35c; 1 lb., 65c;
5 lbs., \$3.00.

Black Leaf 40—To be used for Aphis,
small worms and insects on roses,
small fruit, etc. 1 oz., 25c; ½ lb., 75c;
2 lbs., \$2.50; 10 lbs., \$10.75.

Bluestone—1 lb., 25c. If wanted in large
quantities write for quotations.

Carbolinium—To paint on roofs or to
use as a preservative or disinfectant
in hen houses. Qt., 45c; ½ gal., 85c;
gal., \$1.50.

Conkey's Lice Killer—For lice on chickens.
Price 60c.

Conkey's Noxi-cide—Price 75c qt.

Crude Carbolic Acid—Sure death to in-
sects. Qt., 45c; ½ gal., 85c; gal., \$1.50.

Formaldehyde—Disinfectant for potatoes.
See page 19.

PLANT SMALL FRUITS around your garden.
fresh from your garden? See Fruit Department, Pages 40 to 43.

Fish Scap—For destroying mealy bugs,
scale, aphis, red spider. Lb., 10c; 3
lbs., 25c.

Whale Oil Soap—10c.

Creosote—Cans, 25c, 45c and 75c.

Tobacco Stems—Fine for nestling pigeons;
keeps mites away from the nests.
Also to use for fumigating and covering
lawns during winter. Per lb., 10c;
3 lbs., 25c.

Sulphur—Lb., 10c.

Tobacco Sulphur Soap—Kills Aphis. 3-oz.
pkg., 10c; 8 oz., 20c.

Rex Lime and Sulphur Solution—Al-
though a fruit spray, it makes the best
lice killer for poultry houses at about
one-sixth the cost. Dilute 5 parts water
to 1 part of the solution. Non-poisonous
and will not kill small chicks.
Qt., 35c; ½ gal., 50c; gal., 85c; 5 gals.,
\$3.00; 10 gals., \$5.00; 25 gallons, \$8.50.

What's nicer than delicious fresh fruit,
fresh from your garden? See Fruit Department, Pages 40 to 43.

"BLACK LEAF 40"

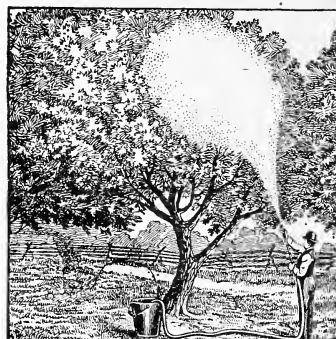
Nicotine Sulphate—40% Nicotine

This is the insecticide that is so highly recommended by Experiment Stations. It destroys Aphis (plant lice), Thrips, Leaf-hoppers on all tree, bush and vine fruits, vegetables, field crops, flowers and shrubs; also Apple Red Bug, Pear Psylla and similar soft-bodied sucking insects—all without injury to foliage.

May be combined with other sprays. Highly concentrated. Soluble in water—easy to mix—does not clog nozzles.

You can not go wrong by ordering "Black Leaf 40" for sucking insects.

PRICES—1 oz., 25c, makes 6 gallons spray; $\frac{1}{2}$ lb., 75c, makes 40 to 120 gallons spray; 2 lbs., \$2.50, makes 160 to 500 gallons spray; 10 lbs. \$10.75, makes 800 to 2500 gallons spray.



REX LIME SULPHUR SOLUTION

Manufactured under special process that insures the user a uniform, reliable and efficient spray for San Jose Scale, etc., etc.

Used in the Yakima and Wenatchee valleys for the last ten or twelve years by the hundred car loads, with universal satisfaction.

TREE TANGLEFOOT

PRICE—PER LB. 40c

For caterpillars, moths and worms. Protects against all climbing insects. One pound makes a band 9 feet long.

GRAFTING WAX

PRICE— $\frac{1}{4}$ lb. 15c

It is important that the wax should not soften and run after having been applied to the graft. Ours is made with this particular feature in view. It will not soften in the sun so as to run. It is, however, easily worked with the hand when being applied. If used in very cool weather, it may be more quickly softened by holding it over the stove for a few minutes. Besides its use for grafting, it is excellent if applied to young trees and shrubs if barked, and will remain on and prevent rot until the wound is covered with new bark.

WHALE OIL SOAP

PRICE—PER LB. 25c

For Aphis, Plant Lice, etc. Is also useful keeping the bark free from scale.

Cargo—(Can be shipped parcel post)—

Price $\frac{1}{2}$ pts., 20c; pts., 30c; qts., 50c; gals., \$1.75.

CARCO ROOT MAGGOT SPRAY

The only remedy yet discovered that has proven effective against the Root Maggot. This spray has been used very extensively by truck gardeners during the past season on cauliflower, cabbage, onions and turnips, and they all report that it has real merit and does better work than any spray they have ever used to abate this nuisance. One user reports that on plants that were sprayed the loss was 15%, while on those not sprayed the loss was about 22%. It is diluted 100 parts, so there is very little chance of injury to the plants.

BLUE STONE

PER LB., 30c

Blue Vitriol or Copper Sulphate. Used in making Bordeaux Mixture.

Dry Lime-Sulfur enters into solution in water almost instantly and spraying operations can be started immediately.

Packages should be stored in a dry place and kept tightly sealed at all times.

80 lbs. of Dry Lime-Sulfur will produce 400 gals. of spray for dormant work.

COMMERCIAL FERTILIZERS PROFITABLE

A 100-lb. Bag of High Grade Commercial Fertilizer will contain more soluble than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than 2 tons of manure, and no weed seeds to worry over.

HELLIBORE**PRICE**— $\frac{1}{4}$ LB. 25c, 1 LB. 90c

Pure Powdered White Hellebore is one of the best insecticides for general use on plants and vegetable foliage. Destroys insects that eat the leaves and flowers, such as Slugs, Caterpillars, Currant Worms, Cutworms, and if mixed with bran, Rose Bugs, and, in fact, most all the eating insects that pester the gardener and grower of plants. When used with water, 1 oz. to 2 gals. is the usual proportion. If used dry apply by dusting.

PARIS GREEN**PRICE**— $\frac{1}{4}$ LB. 40c, $\frac{1}{2}$ LB. 75c, 1 LB. \$1.25

For all leaf-eating insects. The standard arsenical poison killing all leaf-eating insects, worms, slugs, etc. Cheaper than Lead Arsenate, but does not cling to the foliage so long. If used too strong will burn the foliage.

(New) ALL CROP FARMOGERM

A Combination of Beneficial
Nitrogen Gathering
Bacteria for all crops

FIELD CROPS
FRUIT CROPS

For Use on

VEGETABLES
FLOWERS

TRADE FARMOGERM MARK

ALLCROP FARMOGERM is a new combination of seed and soil bacteria, containing 37 varieties, the combination being beneficial for all crops, and is the most recent bacteriological product offered by the famous scientist, Dr. G. H. Earp-Thomas, who has successfully segregated the good and useful bacteria and developed the cultures which are offered in a dry vehicle that will keep them active and virile for two years.

Other legume cultures in a dry medium are guaranteed for but six months, and we know of no other culture that is recommended as being directly beneficial to all crops.

ALLCROP FARMOGERM—Increases the yield of any crop and enriches the soil; supplies the growing plant and increases the nitrogen in the soil improving the quality of the crop. Aids decomposition of soil particles; hastens decayed organic matter, making plant food more available. **Price** 1 acre pkg., \$2.00; 5 acre pkg., \$7.50.

FARMOGERM

High bred Nitrogen Gathering
Bacteria will help you do it.

Inoculate the seeds of all your legumes with **FARMOGERM**, pure cultures of Nitrogen-Gathering Bacteria (in the bottle with the glass tube), and double the yield. At the same time you will add Nitrogen to your soil, Specified cultures for each legume—Peas, Beans, Clover, Alfalfa, Peanuts, Vetch, Soy Beans, Cow Peas.

**BIGGER CROPS AND BETTER SOIL****Cost of Farmogerm**

Small Farm Size, 5 acres....	\$7.50
Trial Farm Size, 1 acre.....	2.00
Garden Size .....	.50

ALL CROP FARMOGERM

1 Acre Size	\$2.00
5 Acre Size	7.50

HAMMOND'S SLUG SHOT

Used from Ocean to Ocean. A light, composite, fine powder, easily distributed either by duster bellows or in water by spraying. Thoroughly reliable in killing Currant Worms, Potato Bugs, Cabbage Worms, Chicken Lice, Slugs, Sow Bugs, etc., and it is also strongly impregnated with Fungicides. **Pkt.**, 25c; 5 lbs., 65c.

Are you doing your part? Plant early; make successive sowings. The food question is up to you.

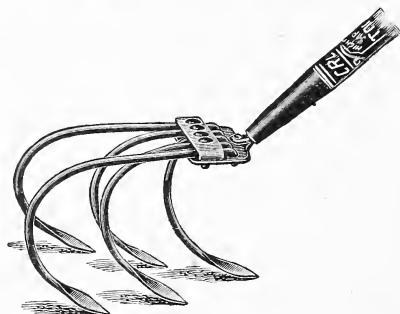
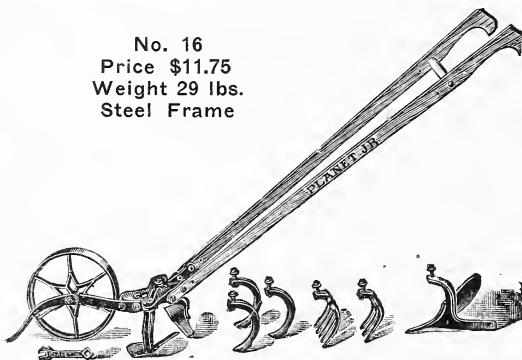
Planet Jr. Garden Tools

It is not possible with the steadily increasing prices of steel, etc., due to war conditions, to list the Planet Jr. Garden Tools with fixed prices. We therefore suggest that you ask for current prices whenever you are in need of any of these tools. The prices mentioned are approximately right, though subject to change.

It need hardly be mentioned that the Planet Jr. tools are the best that can be used and give better satisfaction in the long run than any other tools on the market.

While we list only a few here, we can supply the entire line of the Planet Jr. Tools. Ask for complete descriptive catalog.

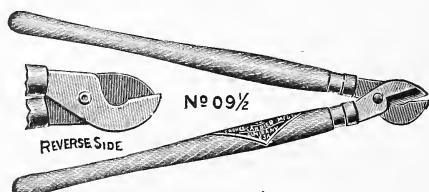
No. 16
Price \$11.75
Weight 29 lbs.
Steel Frame



CULTIVATOR HOES

Head made entirely of steel.

No. 111. Three Prong	\$0.85
No. 112. Five Prong	1.25



No. 9 1/2

Wood Handle, Pruning Shears, made with notched hook, which gives greater leverage and prevents limb from slipping. Blades made of best tool steel. Price \$1.25; by mail, \$1.35.

NO. 16 PLANET JR. SINGLE WHEEL HOE, CULTIVATOR, RAKE AND PLOW

We offer these Single Wheel Hoes as the highest type of their class. They have a great variety of tools which adapt the implements to a large variety of work, and there is scarcely any garden culture of which they are not capable. Wheels, frames and handles are alike, but the attachments sold with each vary.

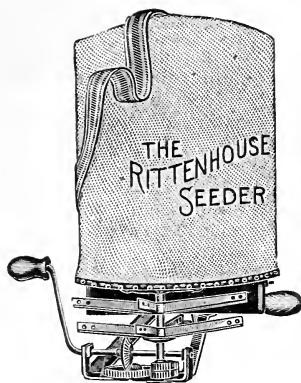
The handles are adjustable in height. The frame is convenient and strong with quick change device by which to exchange the tools without removing the nuts.

NO. 4 PLANET JR.

A very convenient implement combining a capital hill-dropping seeder, a continuous row seeder, an admirable single wheel hoe, a cultivator and a plow. It sows in continuous rows with the greatest uniformity, and also drops with accuracy in hills four, six, eight, twelve or twenty-four inches apart. The feed is automatically stopped by simply raising the handles. No. 4 Planet Jr. Hill and Drill Seeder, complete, weight, packed, 49 lbs.

PRICE LIST OF PLANET JR. GOODS PAGE 52

No. 3	\$19.25
No. 4	20.25
No. 4-D	16.25
No. 5	21.75
No. 6	25.75
No. 12	13.25
No. 13	10.00
No. 16	11.25
No. 17	9.75
No. 17 1/2	8.50
No. 18	7.25
No. 19	7.25
No. 28	26.75
No. 36	12.00
No. 90 Planet Jr., 12-tooth harrow, cultivator and pulverizer	21.50
No. 82 Planet Jr., 7-tooth horse hoe and cultivator combined	20.75
Call or send to us for complete Planet Jr. Catalogue. Prices subject to change without notice.	



**RITTENHOUSE
DOUBLE FAN SEEDER**

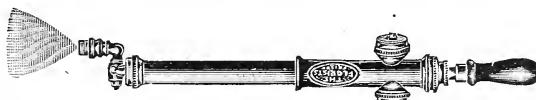
The two distributing fans revolve in opposite directions, throwing the grain further and more evenly than from any seeder with a single distributing wheel. This means a more even stand of grain and larger yield. Price \$2.50.

RITTENHOUSE NO. 3

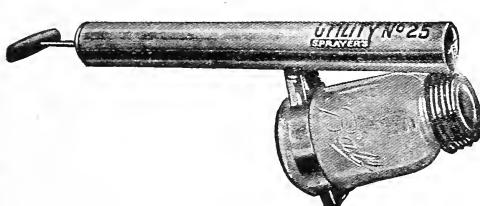
The most widely used sack holds one-half bushel, steel frame, convenient hand hold and body shield. Price \$1.50.

SPRAYERS, SPRAY PUMPS, EXTRAS

**A New Garden Syringe, the
"FLORIST'S FRIEND" SPRAYING SYRINGE**



Marks the greatest improvement in Spraying yet introduced. It is three sprays in one, is made of solid brass, well made and polished, has, as shown, a solid stream spray and also a rose spray, and in addition, and most important of all, a fine atomizer swivel tip, which is instantly adjusted in any position, thus enabling operator to spray beneath leaves and into difficult places. Has quick filling device, with ball valves. Has sleeve to keep solution from operator's hands, and, in fact, is the last word in a Garden Syringe. Price \$3.75.



GLASS TANK SPRAYER

A well-constructed heavy tin sprayer with glass reservoir, which is a Mason jar that is not affected by any kind of spraying material; you can prepare several kinds of spray and change as desired.
 No. 20—One Pint size 60c each
 No. 25—One Quart size 85c each
 No. 30—Two Quart size \$1.00 each
 No. 30—Three Quart size \$1.10 each

OUR SPECIAL

A well constructed fine mist Sprayer, suitable for flowers and poultry.

Quart Size 60c



"KANT-KLOG" SPRAYER

The "Kant-Klog" Sprayer is a compressed air sprayer fitted with a nozzle for making two round and one flat and two solid streams; has thumb pressure Spring Hose Cock, Carrier Strap and Safety Valve. The sprayer body is made of heavy polished brass or galvanized steel, as desired. Both top and bottom are dome shaped; joined to body under heavy pressure, making a complete double seam. The air pump is made of heavy brass tubing, two inches in diameter. A few seconds working of the air pump charges the sprayer with compressed air; a powerful and elastic force, which discharges the liquid in the form of either fine sprays or solid streams, as desired. Each sprayer is fitted without extra charge with "KANT-KLOG" nozzle for making two round and one flat spray, two solid streams, thumb pressure spring hose-cock, carrier strap and safety valve. Price with galvanized steel body, \$5.50; with polished brass, \$8.50.

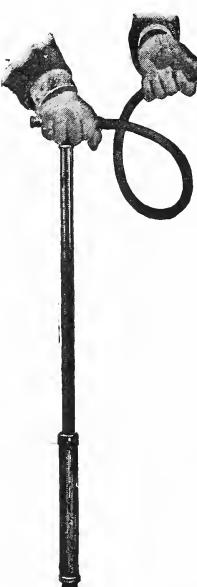
THE STANDARD SPRAY PUMP



The Standard is the busy man's sprayer. Always ready; saves half the time of doing the work. This is, without doubt, the best Spray Pump that has ever been offered to the buying public. It is simple, durable and powerful, and is equally good for field,

garden or orchard work. It is made of brass, with two solid brass valves; it is provided with two nozzles, $3\frac{1}{2}$ feet of hose and strainer. It is warranted unconditionally for five years. No need for unwieldy extension rods, ladders or platforms. It will do the work in one-third the time required by any other sprayer. It will spray a large orchard when used with a barrel. One man will do better work and faster work than two men with an ordinary barrel pump. It will whitewash cow stables and chicken houses, spray cattledip and disinfectants. Owing to the construction of the Standard Spray Pump, the force is sufficient to cover the highest fruit tree and penetrate the thickest foliage—reaching the vital parts of the tree. Used with a knapsack potato attachment it will spray a field of potatoes, one row at a time, as fast as a man can walk. Everyone who has used this pump or seen it used is an enthusiastic booster for it, and we like to sell it, for it always makes a satisfied customer of the person who buys it. No man with a spot of ground to call his own can afford to be without this pump. The price is so reasonable that it is within the reach of all. Weight, 6 lbs.

The Standard is provided with a set of three nozzles. The cuts below show the different kinds of spray produced by different combinations of these nozzles.



Junior No. 5

JUNIOR NO. 5—We do away entirely with the objectionable foot rests, clamps, leather suction, packing, etc. Price of Pump complete, as shown in cut \$3.00

We have the following Sprays:

BLACK LEAF 40, Page 52.

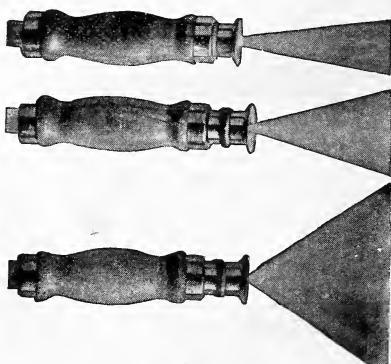
FORMALDEHYDE, Page 19.

ARSENATE OF LEAD, Page 51.

SULPHO TOBACCO SOAP, Page 51.

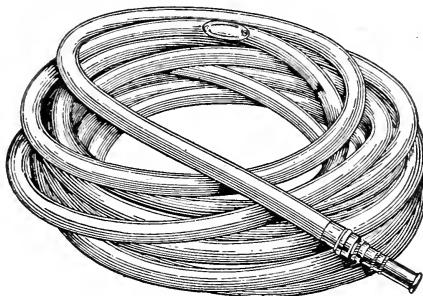
REX LIME SULPHUR SOLUTION, Page 52.

The Very Best Lime and Sulphur Solution on the Market



Warranted for Five Years
PRICE LIST

The Standard, with $3\frac{1}{2}$ ft. hose, full set nozzles and extension rod.....	\$6.00
Knapsack attachment	3.75
Extra hose, per foot .....	.20



GARDEN HOSE

25 ft. length Cotton Hose, \$4.00; 50 ft. length Cotton Hose, \$7.50.

Black Snake Garden Hose—Is a corrugated moulded rubber hose; is strictly first grade, made principally to meet the demand of a good garden hose; in 50 foot lengths only. Price 25 ft. lengths, \$5.25; 50 ft. lengths, \$10.00.

Standard—This is a five-ply guaranteed Rubber Hose, regular construction; made of good material all the way through. Is a splendid value at our price. Can furnish in 50-ft. lengths only. Price 25-ft. lengths, \$4.75; 50-ft. lengths, \$9.00.

Five-Ply Red Rubber Spray Tubing—One-half inch 5-ply Red Rubber Tubing with

extra Rubber Core to withstand the action of chemicals. Can furnish in lengths to suit. Price, $\frac{1}{2}$ -inch 20c per foot.

Extension Rods—Brass for Nos. 25 and 26, or any pump that takes a Bordeaux or Vermorel Nozzle, 2 feet. Price 75c each.

Extension Rods—Brass Rods—Brass for Nos. 18, 21, 21 Pumps; 3 feet. Price 60c each.

Bordeaux Nozzle—\$1.00 each.

Spray Hose (without Couplings.)—Price 15c per foot.

Scollay's Plant Sprayer—\$1.00.

NURSERYMEN'S SUPPLIES

WOODEN LABELS

Tree Labels

Painted Iron Wire—Per 100, 20c; per 1000 \$1.50.

Unpainted Iron Wire—Per 100, 20c; per 1000, \$1.25.

Painted Copper Wire—Per 100, 35c; per 1000, \$2.00.

Unpainted Copper Wire—Per 100, 20c; per 1000, \$1.75.

Pot Labels

4-inch Plain, per 100, 15c; 1000, \$1.00.
Painted, 1000, \$1.15.

5-inch Plain, per 100, 20c; 1000, \$1.00.
Painted, 1000, \$1.15.

6-inch, Plain, per 100, 20c; 1000, \$1.50.
Painted, 1000, \$1.75.

8-inch, Plain, per 100, 30c; 1000, \$1.75.
Painted, 1000, \$2.00.

Grafting Wax—One pound 25c. Add postage if wanted by mail, 6c postage.

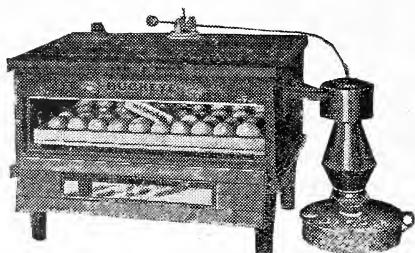
Raffia—Natural color. Market.

COMMERCIAL FERTILIZERS PROFITABLE

A 100-lb. Bag of High Grade Commercial Fertilizer will contain more soluble and available plant food than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than 2 tons of manure, and no weed seeds to worry over.

POULTRY SUPPLIES

BUCKEYE INCUBATORS



The Buckeye Incubators are so simple that the beginner can operate them just as successfully as the experienced poultryman. That's why they are so uniformly satisfactory.

Buckeye Incubators are equipped with every desirable device that can possibly add to incubator efficiency, and they are sold with an absolute guarantee to hatch a chick from every hatchable egg.

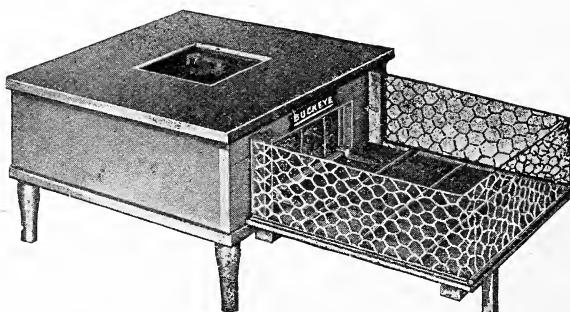
Style C Incubator, 50 Eggs.....\$ 8.00
Style A Incubator, 60 Eggs..... 10.00

Mandy Lee Incubator



Made of kiln-dried white pine and redwood lumber by experienced workmen. Has double walls, packed with cotton batting; the top is three inches thick, composed of the outer casing of wood and a heavy packing of alternate layers of asbestos, cardboard and cotton batting. The heater and all metal trimmings are brass or bronzed metal, with a lamp burner that will not smoke or smell. For complete and full details of construction ask for Mandy Lee Catalogue; it's free.

140 egg \$21.50
200 egg 27.50



Buckeye Brooder No. 3 —A fireless brooder requiring no artificial heat. Fully equipped ready for use; holds 50 chicks. Shipping weight, 30 lbs. Price, \$3.00.

Marvel Colony Brooder

FOR EXPERT OR NOVICE

The Marvel Colony Brooder offers such a great many advantages over other makes that it has become THE brooder for many successful chicken raisers. Our space in this catalog is limited and we therefor will only give a short reviso of what the "MARVEL" is and what it can do. We want you to become sufficiently interested to ask us for our pamphlet, which tells you in detail what you will be able to accomplish with our "MARVEL."

Capacity—Will successfully brood 50 or a large flock of 1,000 chicks.

The Heater—Heavy iron castings, 27 inches high. Fire pot contains enough coal to keep fire going through the night in the coldest weather.

Anti-clinker grate, both shaking and dumping.

Regulation—Automatic.

Control—This is of the utmost importance, as the life of the chicks depends on the controlling of the heat. The superautomatic check control with which the "Marvel" Brooder is supplied is patented by the makers, and one of the strongest features of the brooder. You will save many chicks by using the "Marvel" and its great improvements.

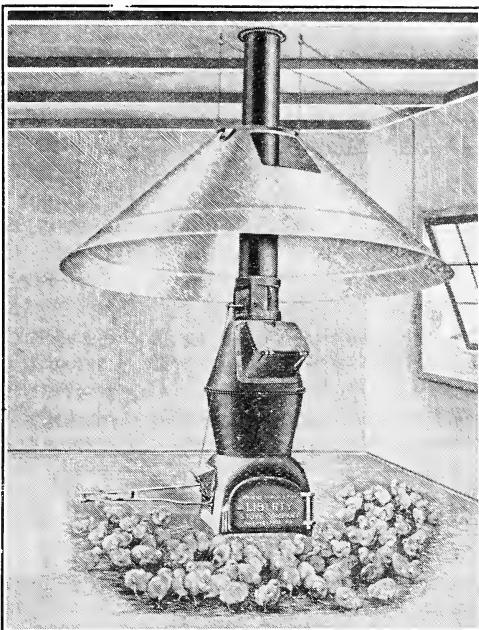
The Pouch Feed—Notice the ease with which coal is administered through the Pouch Feed.

Adustable Hover—The Hover, made of heavy galvanized iron, can be easily raised to any desired height, making the cleansing of the fire a very easy matter.

Fuel—Use chestnut or chestnut mixed with pea coal. Some obtain best results with pea coal alone, though only during mild weather.

Price Outfit No. 10, 41-in. Hover, \$17.50 f. o. b. Seattle

Price Outfit No. 20, 52-in. Hover, \$21.50 f. o. b. Seattle



Safety—There is no danger from fire, as this is all confined within the iron castings.

Fresh Air System—The "Marvel" has this great advantage over other Brooders in that it is based on the fresh air principle. Fresh warm air will keep your chickens alive and healthy; foul air and sweating will cause them to die. Use the "Marvel" and you will see every chick in the hatch develop into a profit-yielding bird.

DRINKING FOUNTAINS AND FOOD HOPPERS

MOE'S STAR JAR FOUNTAIN

The most efficient fountain or feeder ever invented. Will fit pint, quart or one-half gallon Mason jar. Made out of one piece of non-rusting metal. Little chicks cannot get drowned. Convenient, cheap and sanitary. Can be used for feed as well as water. We sell more of this kind than of any other and are discarding all other makes. Price, each, without jar, 15c; by mail, 5c extra.

FOOD HOPPER, \$1.00, \$1.25

Economical for feeding Beef Scraps, Charcoal and Bone.

Moe's Never Fail Trap Nests.....

Moe's Kant-Klog Feeder and Exerciser.....

MOE'S ROUND BABY CHICK FEEDER

A great food saver, as chicks cannot get into it and contaminate the seed. Cannot be upset. Will last for years. Price each 20c; by mail, 25c.

HUMPTY DUMPTY EGG CARRIER

This is the cheapest on the market; collapsible, takes up little room when not actually in use. 144-Egg size, 75c each.

Wall Founts—May be hung up at a convenient height for the poultry. \$1.25.

\$1.00	\$1.25
\$1.50	\$2.00

LEG BANDS FOR POULTRY AND PIGEONS

Every chicken must have a leg band on before it can be entered in a poultry show. In ordering Leg Bands be sure to state size wanted, or breed of fowls bands are to be used on, and number wanted for males or females.



LEADER BANDS

Leader—The latest and best adjustable leg band out. Has neat, compact and smooth fastening, with no catching points; easily attached and is absolutely secure. Price, 12 for 15c; 25 30c; 50 for 50c; 100 for 90c. Postage free.

Key Ring Celluloid Bands—In separate colors, easy to apply; all sizes from pigeons to Asiatics. Price 10c. doz.



DOUBLE CLINCH LEG BANDS PIGEON SIZES

Prices, 12 for 20c; 25 for 35c; 50 for 60c; 100 for 85c.

Pigeon Bands—We can supply the Double Clinch Band at following regular prices, or the Open Band—you simply clasp it on. Prices, doz., 20c; 25, 30c; 50, 45c; 100, 75c; Postage free.



Smith Sealed—Used by America's leading fanciers. 25 for 50c; 60 for \$1.00; 100 for \$1.50; Postage free.

POULTRY MARKERS—For marking poultry; makes a clean, small cut. Price 50c each.

THE PILLING—Farmers' Caponizing Set. The set consists of Cutting Knife, Spreader, Film Hook, Testicle Spoon, Probe and Cords with hooks for holding cockerels during operation. A complete book of instructions is included with each set of instruments. Price \$3.00 postpaid.

SPRATTS' DOG AND CAT FOOD

Full Directions and Instructions on Each Package.

Your dog is your best friend and is entitled to kind treatment and good care. For the ailments to which they are subject you will find nothing better than the following:

Spratt's Pat Dog Soap—Non-poisonous, the only soap that ever should be used in preparing dogs for exhibition, as it leaves the coat smooth and glossy, this soap is strongly recommended for nursery and toilet use, it clears away scurf and dandruff and beautifies the hair; it is a tonic. Per cake, 25c.

Spratt's Dog Biscuit—This is scientifically prepared food that is taken readily by all breeds of dogs. It is composed of meat, wheat and vegetables, and is a well-balanced ration. Per lb., 15c.

Catnip Mouse—The object is to furnish amusement to and benefit the health of cats. In endeavoring to get the catnip it induces them to exercise; if the cat plays with it violently, it is saying as plainly as it can that it wants catnip. If you value your cat's health, give it to them at times. Price 10c.

Cat Food—A staple food for long or short haired breeds. Kittens as soon as they are ready to leave their mothers should feed on it. Lb., 15c.

POULTRY FOODS AND REMEDIES

Only too often fowls are liable to get sick, and in many cases it is the quick admonition of the right remedy which either saves the sick birds or at least prevents the rest of the flock from catching the same disease.

We are listing below the best remedies for the various ailments among poultry; also lice destroyers and egg producers.

Conkey's, Pratt's and Dr. Hess's are considered the leading remedies. Prices subject to market changes.

Dr. Hess' Pan-a-ce-a, 1½ lbs., 30c.

Dr. Hess' Louse Killer, 1 lb., 30c.

Dr. Hess' Roup Remedy, 30c.

Andrews' Obaco, 50c.

Andrews' Deathmite, 50c.

Poultry Oculum, 50c and \$1.00.

Licene, 60c.

CONKEY'S POULTRY REMEDIES

Cholera Remedy	\$0.30	Lice Powder, 48 oz.....	.60
Cholera Remedy .....	.60	Lice Powder, 100 oz.....	1.20
Gape Remedy .....	.60	Broncritis Remedy .....	.660
Chicken Pox Remedy .....	.60	Lice Liquid, 1 qt.....	.60
Blackhead Remedy .....	.60	Lice Liquid, 2 qts.....	1.00
Limber Neck Remedy .....	.60	Lice Liquid, 1 gal.....	1.75
Canker Special .....	.60	Noxi-cide, 1 pt.....	.50
Scaly Leg Remedy .....	.60	Noxi-cide, 1 qt.....	.75
Scaly Leg Remedy .....	.30	Noxi-cide, 2 qts.....	1.25
Rheumatic Remedy .....	.60	Noxi-cide, 1 gal.....	2.00
Healing Salve .....	.30	Poultry Worm Remedy .....	.60
Poultry Laxative .....	.30	White Diarrhoea Remedy .....	.60
Poultry Tonic .....	.30	White Diarrhoea Remedy .....	.30
Head Lice Ointment .....	.30	Fly Knocker, 1 qt .....	.60
Head Lice Ointment .....	.15	Fly Knocker, 2 qts	1.00
Lice Fix .....	.30	Fly Knocker, 1 gal	1.75
Lice Powder, 15 oz.....	.30	Roup Remedy .....	.30
Black Head Remedy .....	.60	Roup Remedy .....	.60

VETERINARY, POULTRY AND STOCK FOOD

Ellen's New Discovery—A perfect non-poisonous healing powder, protected under the Pure Food and Drug Act. A sure cure for old standing sores, ulcers, scratches, collar and saddle galls, and all sores of man or beast. Small cans, 25c each; large cans, 50c each.

Rex Liniment—For sprains, bruises, swellings, burns, mange, etc.; a valuable liniment for man or beast. 50c and \$1.00 bottles, 50c size for 40c; \$1.00 size for 75c. Express only; cannot be mailed.

Pratt's White Diarrhoea Remedy. The cure that also prevents

30c

Pratt's Chicken Cholera Remedy.....30c

Pratt's Head Lice Ointment.....15c

Pratt's Bronchitis Remedy.....30c

Pratt's Sore-Head Chicken Pox Remedy

30c

Lee's Lice Killer—For 17 years the standard. Liquid. Destroys either by vapor or contact. No trouble to apply; just paint the roosts or wall at night. Rids poultry and houses of all vermin; is prepared exclusively for this purpose, and there is nothing as good. Prices: qt., 60c; $\frac{1}{2}$ gal., \$1.00; 1 gal., \$1.75.

Lee's Insect Destroyer—Powder. 1-lb can.. 30c.

Lee's Germozone—For poultry. The cure that cures. Its action is marvelous. Never fails to cure bowel complaint, cholera, roup, colds, etc. Whatever malady threatens, Germozone will cure or prevent. Don't be without it. Liquid, 12-oz. bottle, 60c.

Lee's Egg Maker—Is not a tonic nor a medicine, but a meat of great value. Will make chicks grow up in a healthy vigorous condition. $2\frac{1}{2}$ -lb. package, 30c.

Pratt's Poultry Regulator—Makes hens lay. 30c and 60c packages.

Pratt's Powdered Lice Killer. Put it on the birds and in nests. Sifter top boxes

30c

Rex Conditioner—Guaranteed to expel worms and the foreign mucus that breeds the worms; will keep the animal's whole system in perfect condition. 25c pkg., five for \$1.00.

Rex Colic Cure—For spasmodic and flatulent colic. The peculiar nature of colic demands immediate treatment, therefore every stock owner should have a positive cure for immediate use. \$1.00 size bottle for 75c. Express only; cannot be mailed.

Pratt's Poultry Disinfectant and Liquid Lice Killer. Spray everywhere

75c

Pratt's Roup Remedy. Tablets or powder. Cures and prevents. Never be without it

30c

The average poultry keeper as a rule keeps hens more for egg production than for meat. The regulators and egg producers below will prove of great value to those who want to get the biggest profit from their hens.

Laying Tonic—A complete ground food to be fed dry or wet, starts hens laying and keeps them at it. Hastens moulting. Puts poultry in prime condition. A rich, wholesome, nourishing food for growing fowls and hens. Encouraging rapid growth and increasing egg production; can be fed dry or in a mash. **Conkey's Laying Tonic**— $1\frac{1}{2}$ lbs., 30c; $3\frac{1}{4}$ lbs., 60c; 7 lbs., \$1.20; $12\frac{1}{2}$ lbs., \$1.75; 25 lbs., \$3.25.

Zenoleum—A disinfectant sheep dip insecticide and lice killer. Zenoleum is much stronger and much safer than carbolic acid; endorsed by the leading agricultural stations in the United States. Small cans, 35c; quarts, 60c; $\frac{1}{2}$ gal., \$1.00; gal., \$1.75.

BLOOD MEAL

The most highly concentrated egg-producer on the market. To be fed in soft food. Unexcelled as a food for forcing growth of chick or as an egg food. Per lb., 10c; 100 lbs., \$6.00.

CHARCOAL

Our Charcoal is prepared especially for poultry. It is granulated and free from dust. A good thing for bowel trouble, sour crop and indigestion; a health preserver. Two sizes, chick and hen. Per lb., 10c; 3 lbs., 25c.

GRIT

Every poultry raiser should keep a supply of this grit in each pen. All fowls must have hard, sharp grit of some kind with which to grind their food after it passes into the gizzard, otherwise they will not do well. Hundreds of young chicks die annually from no other cause than want of good grit. Made in two sizes, chick and hen size. We always send hen's size unless otherwise ordered. Lb., 2c.

Bran Market Price

KOW KURE

The World's Greatest Cow Medicine—This is different from anything ever discovered for cow troubles. It is the only medicine that is strictly for cows only. It is not a stock food, but a specific remedy, especially for cow diseases. **Kow Kure**, 55c; postpaid, 65c. **Kow Kure**, \$1.20; postpaid, \$1.25.



Blatchford's will save your baby chicks
Milk Mash
No more bowel trouble, leg weakness or white diarrhea
Equal to milk
Grows, matures or fattens

2 1/4 lbs. at 8 weeks!

Scratch Food—Our brand of scratch food is a compound of a variety of grains, forming a well-balanced ration for the laying hens and growing fowls. 5 lb. 25c; per 100 lbs., \$4.20.

ALFALFA MEAL

The best substitute for green food for winter feeding. Per lb., 5c; 10 lbs., 35c; 100 lbs., \$2.35.

ALBERS CALF MEAL

25-lb. sacks \$1.75

BLATCHFORD'S CALF MEAL

25-lb. sacks \$1.75

Ground Flax—Lb., 15c; 2 lbs., 25c.

**GRANULATED SHELL**

Granulated shell by analysis almost the same as the shell of a hen's egg. Per lb., 2c; 100 lbs., \$1.40.

Prices shown above are subject to change.

KOW KURE makes poor cows good, good cows better, and makes more money for cow owners.

PROTENIA

Protenia is 46 per cent protein and 10 per cent fat and is a rich and nutritious food of superior value as an egg producer. It is relished by young and old fowls and all farm animals. Contains twice the food value of grain. Market price.

BEEF SCRAPS

These are the very best the market affords. It is the best thing we know of to cause hens to lay during the winter. Feed three times a week, using about a handful to each three birds in the hot morning mash. Price, lb., 8c; 100 lbs., \$6.00.

FISH SCRAPS

A very nutritious product made from fresh fish. By using it half and half with the morning mash you will greatly improve the laying qualities of your hens. Price, lb., 5c.

POULTRY PEPPER

Our Mexican Chilli Pepper is a necessity for laying hens during the moulting season. One teaspoonful in a mash to 12 or 14 fowls. Lb., 25c.

GRANULATED BONE

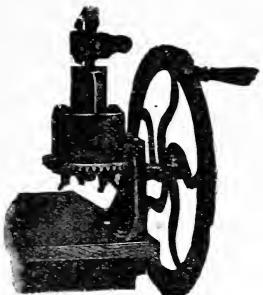
Our Granulated Bone is made from selected hard white, raw bones, and of a superior quality; an indispensable food for laying hens. Per lb., 6c.

LAYING MASH

A mixture of sound, sweet, nutritious grains in ground form to which is added a liberal proportion of blood meal and mealed alfalfa. Per 100 lbs., \$3.60.

Write for current price before ordering.

MANN'S BONE CUTTERS—The only bone mill that will cut bone and not clog. Has a self-governing feed, producing uniform pressure against the knife, whether the bone is hard or soft.



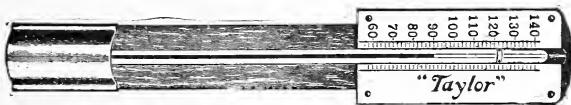
No. 5B. Mann's—Has 4 knives, large, solid cylinder, automatic governing spring feed; large balance wheel. Price \$12.00.

No. 7. Mann's—Mounted on a strong stand. Has large open-hinged cylinder, giving access to all working parts, six knives, gear guard, heavy balance wheel and other improvements. Price \$18.50.

Wilson Mill No. 1—This is a practical mill for grinding shell, grit, dry bone, corn and other grains. Price \$6.75.

RAPID CLOVER CUTTER

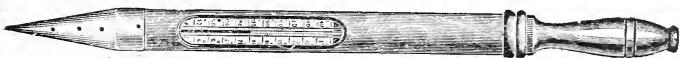
The "Rapid" Clover Cutter is designed for cutting either green or dry such growths as clover, alfalfa, vegetable tops, etc., in $\frac{1}{8}$ -inch lengths. These growths are the cheapest and most productive egg-forming poultry foods for cold weather. Those who are familiar with "ordinary" clover cutter construction will appreciate these improvements. The "Rapid" is made only of iron and steel. The machine is intended to be mounted on a box or bench at any height to suit the operator. Weight, 75 lbs. Price \$17.50.



Dairy Thermometers. Price 35c.

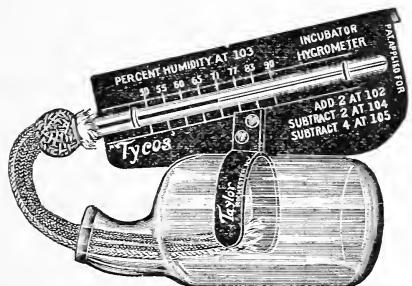
Hot Bed Thermometer. Brass point, for ascertaining the degree of heat in the hot beds. Price \$2.50.

Brooder. No. 771—Has magnifying lens front making reading much easier. Price 75c.

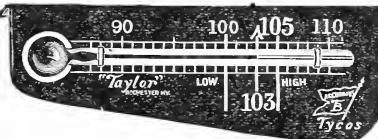


Hot Bed Thermometer

Incubator Thermometers, No. 756—Has round corners, tube set at an angle; length 4 inches. Price 75c.



Incubator Hygrometer—Shows the amount of moisture in the eggs, lessens the percentage of chicks dying in the shell, due to improper moisture conditions. Full directions sent with each Hygrometer. Price \$1.50.



Incubator No. 755—Same as No. 756, except that it is certified correct; worth the additional cost. Price \$1.50.

House Thermometers—Fine Japan, just the thing for house use. 50c.

DO YOU FEED YOUR GROWING CROPS AS YOU DO YOUR STOCK?

Or are you actually starving your fruit, grain, vegetables, or whatever it may be, just because it never has occurred to you in this light before?

Our High-Grade Fertilizers supply the necessary plant foods. They will increase your crops and double the money invested. See page 51.

OUR BIRD PAGE

The Birds are shipped by express at risk and expense of buyer. The Express Company is responsible for the safe transportation, so that in case the bird does not seem to be in first-class condition on its arrival it should be refused.

Our Birds will give thorough satisfaction, as no birds will be sent out unless they are thoroughly tested singers.

When ordering a Canary tell us if you want a pure yellow, a dark or a yellow bird with dark markings. Our prices range from \$7.00 to \$15.00, the lower priced birds as a rule being dark colored ones, although occasionally we can supply an exceptionally good dark singer at a more advanced price.

For females our price is \$1.50 for dark colored and \$2.00 and up for yellow birds.

If you want a Canary in your home, let us know. Send us the price you wish to lay out and we will see to it that you are absolutely satisfied. No birds sent c. o. d.

BIRD SEEDS AND OTHER NECESSITIES

Our Bird Seeds are always fresh, clean and reliable. Our mixture is made once or twice a week from recleaned seeds. If you value your bird you should obtain your bird food from us. No loss through dirty, moldy or wormy seed.

Kaufmann's Special Mixture for Birds	20c	Corn for Parrots, lb.....	15c; 2 for 25c
Kaufmann's Hemp Mixture.....	20c	Rape, German, lb.....	20c
Hemp, lb.	15c	Rough Rice, lb.	10c
Lettuce Seed, lb.	25c	Cuttle-fish Bone, each.....	5c and 10c
Maw, Blue Poppy, oz.....	10c	Sunflower, lb.	15c 2 for 25c
Millet, Golden, lb.....	15c	Tonic, Hennings	25c
Millet, Russian, lb.....	10c	Bird Bitters	25c
Bird Manna, pkg.	15c	Bird Nesting	5c
Birdoline, pkg.	15c	Lice Exterminator, box.....	25c
Song Restorer, pkg., 15c and.....	25c	Red Sand, lb.	10c
Ant Eggs	15c	White Sand, lb.	5c
Moultting Pepper	25c		

BY MAIL—If you want above seeds by mail add postage to cover parcel post rates. See inside front cover.

CANARY BIRDS

Little Dewdrops of Celestial Melody

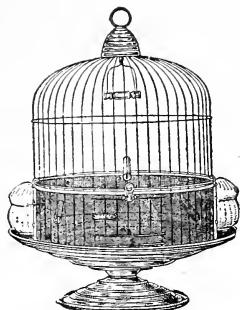
The companionship of a bird has lightened the life of many a tired, overworked mother, on whom the daily cares and burdens of life have rested heavily.

The music of a good songster makes the whole house more cheerful, and every member of the family enjoys the pure clear notes of the happy little songster.

These beautiful pets are the favorite song birds of today; no home is complete without one of them in its dainty cage, their wonderful vocal powers make them very desirable pets, and we find that it is both instructive and interesting to raise them.

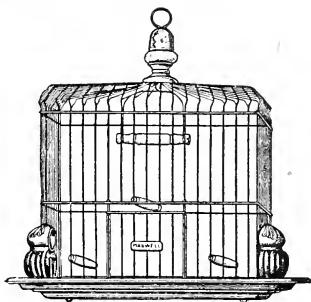
The superior quality of our selected Canaries will please the most critical, of which we keep a large stock to choose from; also Linnets, Parrots, Paroquets, Finches, Japanese Robins, Black Hood Nuns, etc., etc.

BIRD CAGES



Plain White

Square—	Plain with Drawer
270—9 x 6	\$2.10
271—9½ x 6½	2.25
272—10 x 7	2.45
273—10½ x 7½	2.60
274—11 x 8	2.80
275—11¾ x 8¾	2.90
	3.75



Brass—Guard

Square—		
549—10½ x 7½		\$4.50
550—10¾ x 7¾		5.00
551—11¼ x 8¼		5.50
552—11¾ x 8¾		6.00

Round Ivory Pedestal Base—Brass Guard
and Knob

8888-W—10 in. diameter	\$4.50
8888-E—10½ in. diameter	5.00
8888-D—11 in. diameter	5.50

Round Brass Beehive Cage
Pedestal Base

8888-W—10 in. diameter	\$6.00
8888-S—10¾ in. diameter	6.50
8888-L—11 in. diameter	6.75

Cozy Corner, Brass—Oxidized Trimmed
1111—8¾ x 8¾ \$14.00Cozy Corner, Brass—Copper Trimmed
1111-B—8¾ x 8¾ \$15.00

Cozy Corner—White

1111-W—8¾ x 8¾	\$10.00
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Bath House—Brass, Drawer Base

7777—9½ in. diameter	\$9.50
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Breeding Cages

No. 17 with partition	\$3.75
No. 18 with partition	4.25
No. 19¼ with partition	4.75
No. 42 with partition	6.00

Birdoline—Will improve the bird's voice; a relief for loss of song, hoarseness, asthma, shedding of feathers out of season; also a preventive against most diseases common to canaries and seed-eating birds. Price 15c.

Bird Mana—Keeps cage birds in constant song; improves the plumage and prevents disease. A sure cure for the loss of song, and nearly all diseases of cage birds. Price 15c.

BIRD SEEDS AND OTHER NECESSITIES

Bird Bitters—A specific for the restoration of song, and an unfailing remedy for nearly all the diseases of cage birds. Price 25c.

Hennings Tonic—For the prevention and cure of all diseases which cage birds are subject to: colds, asthma, hard breathing, shedding of feathers out of season, diarrhea, etc. Price 15c and 25c.

Song Restorer—(Spratt's) Specially prepared for birds who have lost their voice from the effects of colds, or excessive moulting; for breeding birds and their young; and for old it is invaluable, strengthening the voice and improving the plumage. Price 25c.

Song Restorer (Dahotas)—A special treat for canaries and other song birds; this song restorer is of the highest advantage to seed-eating song birds that are moulting, and also to those that have lost their voice on account of colds, drafts, etc. Price 15c.

Spratt's Color Food—Color food for canaries for natural red plumage; specially prepared. Price 25c.

Plumage Restorer—For restoring the plumage of parrots, canaries, and other cage birds. Price 25c.

Moulting Pepper—For changing the plumage of canaries from yellow to red. Price 25c.

Cod Liver Oil—Cage bird food—is an invigorating and healthy preserving diet for canaries, etc. A substitute for egg food, being less expensive and more easily prepared. It is a valuable tonic, a flesh and bone maker, keeping birds in perfect health. Price 20c.

Nestling Food—A substitute for hard boiled egg and cracker, fed to young canaries. Price 25c.

Gold Fish—Did you ever own a globe of Gold Fish; you admire them no doubt, for their pretty form, exquisite coloring, and graceful movements, but if you have never kept fish, you cannot realize how your interest grows as you become more familiar with them.

They require very little attention; they should have plenty of pure fresh water (good drinking water). When they continually come to the surface, making bubbles, it indicates that they need fresh water. And also when the water becomes milky looking, it needs to be changed. We keep a small amount of salt in the tank, and feed a small amount of feed each day. The best way that we know of to regulate the feeding is by watching the excrement: when it becomes

American Salve—Is used for the loss of plumage, sores, abrasions, and wounds of domestic animals, such as canaries and other pet birds, dogs, cats, horses, cows, etc. Price 25c.

Bird Eye Water—A specific for the cure of sore eyes, and inflammation of the eye lids of all kinds of cage birds, and other domestic pets. Price 25c.

Kaempers Bird Liniment—A prompt and efficient remedy for all diseases of the feet. Price 25c.

Parrot Tablets—To keep parrots from picking out their feathers, and for maintaining parrots in good general condition. Price 25c.

Kaempers Parrot Tablets—For diarrhoea, bloody flux, or any deranged condition of the bowels. Price 25c.

Phenolated Brassica Oil—For mites, parasites, etc. Price 25c.

Mite Powder—For mites, lice, parasites, etc. Price 25c.

Kaufmann's Special Mixture Bird Seed—Put up from specially re-cleaned seeds; bright, clean, pure and wholesome, from one of the best formulas; without any hemp in it. Price 20c.

Kaufmann's Hemp Mixture—Has a small amount of hemp in it for those who wish to feed some hemp; put up with the same care as Kaufmann's Special Mixture. Price 20c.

Books on Canary Breeding and Training, by Chas. N. Page, describes and tells the whole story of the necessary care of the canary as a songster; 80 pp. 25c each.

Feathered Pets, by Chas. N. Page, describes and tells how to care for birds that can be successfully kept in captivity. 144 pp. 25c each.

Parrot Book describes different kinds, tells how to treat them when sick, how to train and care for young parrots. Paper, 25c.

whitish lessen the quantity of food, as when conditions are normal the excrement should be dark.

We have at all times a full stock of Gold Fish, varying in price from 25c up, according to size and age of fish.

We keep an assortment of glass fish globes, varying in price from 50c, 85c, \$1.75 to \$2.75 each.

Improved Wafer Fish Food—A highly nutritious preparation which is readily eaten by Gold Fish. 15c per box.

White Sand or Gravel—Absolutely clean, is very beneficial for aquariums, bird cages, etc., 5c per pound.

Fish Nets—For handling Gold Fish without danger of injury to them. Medium size, 25c each.

QUANTITY OF SEEDS REQUIRED

Quantity per Acre

Alfalfa	10 to 20 lbs.
Alsike	8 to 10 lbs.
Artichoke	1 oz. to 500 plants, 6 oz.
Asparagus	1 oz. to 500 plants, 1 lb.
Barley	100 lbs.
Beans, dwarf	1 lb. to 100 ft. of drill, 50 lbs.
Beans, Pole	1 lb. to 150 hills, 25 lbs.
Beet, garden	1 oz. to 50 ft. of drill, 5 lbs.
Beet, sugar or mangel	5 lbs.
Broccoli	1 oz. to 2,000 plants, 4 oz.
Brussels Sprouts	1 oz. to 2,000 plants, 4 oz.
Broom Corn	8 to 12 lbs.
Buckwheat	50 to 60 lbs.
Cabbage	1 oz. to 2,000 plants, 8 oz.
Carrot	1 oz. to 125 ft. of drill, 3 lbs.
Cauliflower	1 oz. to 3,000 plants, 4 oz.
Celery	1 oz. to 5,000 plants, 4 oz.
Cheat	100 lbs.
Chicory	1 oz. to 100 ft. of drill, 4 lbs.
Clover, White, Alsike and Bokhara	6 to 10 lbs.
Clover, Red, Mammoth and Crimson	8 to 15 lbs.
Collards	1 oz. to 2,000 plants, 4 oz.
Corn, sweet	1 lb. to 200 hills, 15 lbs.
Corn, field	12 to 20 lbs.
Corn, pop	8 to 10 lbs.
Cress	1 oz. to 150 ft. of drill, 2 lbs.
Cucumber	1 oz. to 100 hills, 2 to 3 lbs.
Egg Plant	1 oz. to 2,000 plants, 4 oz.
Endive	1 oz. to 400 ft. of drill, 4 lbs.
Emmer	100 lbs.
Flax, for seed, 30 lbs.; for fiber	50 lbs.
Grass, lawn, mixed	1 lb. to 250 sq ft.
	145 lbs.
Grass, Kentucky Blue, Canadian Blue	40 lbs.
Grass, Timothy	12 to 40 lbs.
Grass, Red Top, in chaff	30 to 40 lbs.
Grass, Red Top, solid seed	10 to 12 lbs.
Grass, Rye Grass, English and Italian	40 to 50 lbs.

USUAL DISTANCE

Asparagus, 3 to 4 by 2 feet.
Beans, Bush, drills, 2 to 3 feet apart.
Beans, Pole, 3 to 4 feet each way.
Beets, Early, drills 12 to 18 inches apart.
Beets, Late, drills 2 to 3 feet apart.
Blackberries, erect growing, 6 to 9 by 4 feet.
Blackberries, Mammoth and Himalaya, 8 by 24 feet.
Cabbage, Early, 16 by 30 inches.
Cabbage, Late, 24 by 30 inches.
Carrots, drills 1 to 2 feet apart.
Cauliflower, 2 by 2 to 2 by 3 feet.
Celery, rows, 3 to 4 ft., 6 inches in row.
Corn, Sweet, 3 to 3 1/4 feet by 9 to 24 inches.
Cucumber, 4 to 5 feet each way.
Currants, 5 by 3 feet.
Egg Plant, 3 by 3 feet.

Quantity per Acre

Grass, Orchard	40 to 45 lbs.
Grass, Meadow Fescue	25 to 30 lbs.
Hemp	40 to 50 lbs.
Horse Radish Roots	10,000 to 11,000
Kale	1 oz. to 200 ft. of drill, 1 lb.
Kohl Rabi	1 oz. to 150 ft. of drill, 2 lbs.
Kaffir Corn	6 to 10 lbs.
Leek	1 oz. to 100 ft. of drill, 4 lbs.
Lettuce	1 oz. to 100 ft. of drill, 3 lbs.
Melon, Musk	1 oz. to 60 hills, 2 to 3 lbs.
Melon, Water	1 oz. to 30 hills, 3 to 4 lbs.
Millet	20 to 30 lbs.
Nasturtium	1 oz. to 50 ft. of drill, 15 lbs.
Oats	75 to 100 lbs.
Okra	1 oz. to 100 ft. of drill, 8 lbs.
Onion	1 oz. to 100 ft. of drill, 4 to 5 lbs.
Onions, for sets	30 to 80 lbs.
Onion Sets	1 lb. to 40 ft. of drill, 400 lbs.
Parsley	1 oz. to 100 ft. of drill, 3 lbs.
Parsnip	1 oz. to 100 ft. of drill, 3 lbs.
Peas, garden	1 lb. to 50 ft. of drill, 200 lbs.
Peas, field	90 to 150 lbs.
Pepper	1 oz. to 1,500 plants
Potatoes	400 to 600 lbs.
Pumpkin	1 oz. to 30 hills, 3 to 4 lbs.
Radish	1 oz. to 100 ft. of drill, 10 lbs.
Rape, Dwarf Essex	3 to 5 lbs.
Rutabaga	1 oz. to 150 ft. of drill, 2 to 3 lbs.
Rye	90 to 120 lbs.
Salsify	1 oz. to 50 ft. of drill, 8 lbs.
Sorghum, in hills	20 lbs.
Sorghum, in drills or broadcast	60 to 90 lbs.
Spinach	1 oz. to 75 ft. of drill, 8 lbs.
Squash, bush	1 oz. to 25 hills, 8 lbs.
Squash, vine	1 oz. to 12 hills, 2 lbs.
Sunflower	8 lbs.
Tobacco	1 oz. to 3,000 plants, 3 oz.
Tomato	1 oz. to 2,000 plants, 4 oz.
Turnip	1 oz. to 150 ft. of drill, 2 lbs.
Wheat	90 to 120 lbs.

FOR PLANTING

Lettuce, drills 18 inches apart.
Melon, Musk, 5 to 6 feet each way.
Melon, Water, 7 to 8 feet each way.
Gooseberries, 5 by 3 feet.
Grapes, 8 to 10 by 12 feet.
Onions, drills 14 to 20 inches apart.
Parsnips, drills 18 to 36 inches apart.
Peas, drills 2 to 3 feet apart.
Pepper, 15 to 18 inches by 2 to 2 1/2 feet.
Potatoes, 12 to 18 inches by 2 1/2 to 3 ft.
Pumpkin, 8 to 10 feet each way.
Radish, drills 10 to 18 inches apart.
Raspberries, 6 to 8 by 3 feet.
Rhubarb, 2 to 4 feet by 4 feet.
Salsify, drills 18 to 24 inches apart.
Spinach, drills 12 to 18 inches apart.
Squash, Bush, 3 to 4 feet by 4 feet.
Squash, Running, 12 feet each way.
Tomato, 4 feet by 4 to 5 feet.

CLASSIFICATION OF FLOWERS

This will enable you to tell at a glance what flowers are suitable for any position.

Annual Bedding Plants or Tall Border Plants—1 to 2 feet

Ageratum, Tall.....	blue
Asters	various colors
Balsam	various colors
Brachycome.....	blue, white, rose
Browallia.....	blue and white
Calendula	mixed
Candytuft	various colors
Celosia	crimson
Centaurea	yellow, rose
Chrysanthemum	yellow, white, gold
Clarkia	pink, scarlet
Eschscholtzia (California Poppy)	crimson, white, yellow
Four o'Clock	various colors
Gaillardia	orange, scarlet
Gilia	white, lilac rose
Godetia.....	variegated rose and white
Gypsophila (for bouquets)	white
Linum (scarlet flax)	scarlet
Marigold	yellow, red, brown and variegated
Mignonette	white, yellow, red
Nasturtium, dwarf.....	various colors
Nigella (Love in a mist)	
Petunia	various colors
Poppy.....	various colors
Phlox.....	various colors
	white, lilac, carmine and maroon
Scabioso	
Schizanthus	various colors
Salvia	scarlet
Stocks (10 weeks).....	all colors
Viscaria	various colors
Zinnia	various colors

Everlasting Flowers

Acroclinium	Pink
Globe Amaranth, Gompherenha	various colors
Helichrysum	various shades
Rhodanthe.....	pink, white
Statice	white, blue and yellow

Tall Growing Plants for Grouping— Annual, from 2½ feet UP.

Amaranthus	scarlet
Calliopsis.....	yellow, brown, maroon
Castor Bean	
Cosmos	white, red, pink
Euphorbia	
Kochia	
Larkspur	various colors
Nicotiana	white
Rudbeckia	yellow
Salpiglossis	various colors
Scabiosa Grandiflora	all colors
Sunflower	yellow

Low Edging Plants—Annual

Ageratum Dwarf	blue
Alyssum	white
Bulbs	all colors
Calliopsis, Tiger Star.....	reddish brown
Candytuft	various colors
Celosia, Dwarf	
Centaurea, Dusty Miller.....	
Dianthus	various colors
Lobelia Compacta.....	blue
Mignonette	white, yellow, red
Nemophila	blue
Pansy	all colors
Portulaca.....	yellow, pink, white, scarlet
Verbena.....	various colors

Climbing Vines—Annual

Balloon Vine	white
Scarlet Runner Bean.....	scarlet
Canary Bird Vine.....	yellow
Cypress Vine.....	
Gourds.....	
Moonflower	white
Morning Glory.....	
Nasturtium, Tall	various colors
Sweet Peas	all colors
Wild Cucumber.....	

Bedding Plants—Perennial—

1 to 2 feet High.

Achillea	white
Agrostema	pink
Anterrhinum (Snap Dragon).....	various
Aster	various colors
Begonia	various colors
Calceolaria	various shades and colors
Calla.....	
Candytuft	all colors
Carnation	
	yellow, white, red, pink and variegated
Cineraria	various colors
Coleus	
Columbine	yellow, violet, rose
Daisy (Shasta)	white
Gaillardia	yellow, orange, scarlet
Geum	scarlet
Linum	various colors
Lychnis	scarlet
Pentstemon	various colors
Salvia	scarlet
Statice	white, blue, yellow
Stocks (perpetual)	all colors
Sweet William	various colors
Tritoma.....	orange, red
Vinca	white, rose
Wallflower	various colors

PERENNIAL POPPIES—Continued

Low Edging Plants—Perennial
6 to 12 inches high

Arabis Alpine	white
Alyssum Saxatile	yellow
Anemone	various colors
Pinks	various colors
Daisy, English	various colors
Edelweiss	
For-get-me-not	blue
Oxalis	yellow, pink, lavender, white
Poppy, Iceland	white, orange, yellow
Primula	various colors
Pyrethrum	various colors
Viola	yellow, white and blue

Tall Growing Shrub Plants—Perennial
For Grouping from 2½ feet up.

Anchusia	blue
Aster	various colors
Canna	various colors
Canterbury Bells	various colors
Chrysanthemum	various colors
Columbine	various colors
Dahlia	all colors
Delphinium	various colors
Digitalis	
Fuchsia	
Geranium	scarlet, white, pink
Gladiolus	various colors
Goldenrod	yellow
Hollyhock	various colors

Lantana	red, white, yellow
Lavender	
Lobelia Cardinalis	scarlet
Lupin	shades of blue
Poppy, Oriental	various colors
Phlox, Perennial	various colors
Scabiosa	
Snapdragon, Tall	various colors
Wallflower	various colors

Climbing Vines—Perennial	
Ampelopsis, Boston Ivy and Virginia Creeper.	
Clematis	white, lavender, red
Cobea Scandens.	
Kudzu Vine	violet

For Rockeries, Hanging Baskets or Window Boxes

Arabis Alpina	white
Asparagus Fern.	
Delweiss.	
For-get-me-not	blue
Ice Plant.	
Lobelia Trailing	blue
Mimulus	yellow
Nasturtium	various colors
Oxalis	yellow, white, pink, lavender
Portulaca.	
Thunbergia	buff, orange and white
Verbena	various colors
Petunia	various colors

REFERENCE TABLES

WEIGHTS OF VARIOUS ARTICLES

Artichokes	60 lbs.
Barley	48 lbs.
Beans	60 lbs.
Buckwheat	48 lbs.
Blue Grass—	
Kentucky	14 lbs.
English	24 lbs.
Canary Seed	60 lbs.
Cheat	34 lbs.
Clover Seed	60 lbs.
Corn, Shelled	56 lbs.
Charcoal	22 lbs.
Emmer	40 lbs.
Flax Seed	56 lbs.
Grass Seeds (unless otherwise stated)	14 lbs.
Hemp Seed	44 lbs.

Lawn Grass	20 lbs.
Meadow Fescue	24 lbs.
Millet	50 lbs.
Oats	32 lbs.
Onion Sets	32 lbs.
Orchard Grass	14 lbs.
Peach Pits	48 lbs.
Peas, Smooth	60 lbs.
Peas, Wrinkled	56 lbs.
Perennial Rye	20 lbs.
Potatoes	60 lbs.
Rape	60 lbs.
Rye	56 lbs.
Red Top	14 lbs.
Red Top, Solid Seed	42 lbs.
Timothy	45 lbs.
Vetches	70 lbs.
Wheat	60 lbs.

NUMBER OF PLANTS PER ACRE AT VARIOUS DISTANCES

In planting Trees the greater distance should be given in the richer soils.

Distance Apart.	Square Method	Triang- ular
1 ft. apart each way	43,560	50,300
2 ft. apart each way	10,890	12,575
4 ft. apart each way	2,722	3,143
6 ft. apart each way	1,210	1,397
9 ft. apart each way	537	620
10 ft. apart each way	435	502

Distance Apart.	Square Method	Triang- ular
15 ft. apart each way	193	223
16 ft. apart each way	170	196
20 ft. apart each way	108	125
25 ft. apart each way	70	81
30 ft. apart each way	48	55
40 ft. apart each way	27	31

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